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<210> 3072

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3072

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Lys	Glu	Ser	Arg	Gly	Leu	Arg	Gln	Gly	Thr	Ser	Val	Ala	Gln	Ser	
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145	150	155
Arg Ala His Leu Arg Arg Cys His Pro Pro Ala Pro Glu Ala Arg Pro		
165	170	175
Phe Ile Cys Gly Asn Cys Gly Arg Ser Phe Ala Gln Trp Asp Gln Leu		
180	185	190
Val Ala His Lys Arg Val His Val Ala Glu Ala Leu Glu Glu Ala Ala		
195	200	205
Ala Lys Ala Leu Gly Pro Arg Pro Arg Gly Arg Pro Ala Val Thr Ala		
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Pro Arg Pro Gly Gly Asp Ala Val Asp Arg Pro Phe Gln Cys Ala Cys		
225	230	235
Cys Gly Lys Arg Phe Arg His Lys Pro Asn Leu Ile Ala His Arg Arg		
245	250	255
Val His Thr Gly Glu Arg Pro His Gln Cys Pro Glu Cys Gly Lys Arg		
260	265	270
Phe Thr Asn Lys Pro Tyr Leu Thr Ser His Arg Arg Ile His Thr Gly		
275	280	285
Glu Lys Pro Tyr Pro Cys Lys Glu Cys Gly Arg Arg Phe Arg His Lys		
290	295	300
Pro Asn Leu Leu Ser His Ser Lys Ile His Xaa Ser Asp Pro Arg Gly		
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<212> DNA

<213> Homo sapiens

<400> 3073

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<211> 263

<212> PRT

<213> Homo sapiens

<400> 3074

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			20					25					30		
Ser	Cys	Glu	Phe	Leu	Leu	Ala	Gly	Ala	Gly	Gly	Ala	Gly	Ala	Gly	Ala
		35					40					45			
Ala	Pro	Gly	Pro	His	Leu	Pro	Pro	Arg	Gly	Ser	Val	Pro	Gly	Asp	Pro
	50					55					60				
Val	Arg	Ile	His	Cys	Asn	Ile	Thr	Glu	Ser	Tyr	Pro	Ala	Val	Pro	Pro
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Ile	Trp	Ser	Val	Glu	Ser	Asp	Asp	Pro	Asn	Leu	Ala	Ala	Val	Leu	Glu
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Arg	Leu	Val	Asp	Ile	Lys	Lys	Gly	Asn	Thr	Leu	Leu	Leu	Gln	His	Leu
			100					105					110		
Lys	Arg	Ile	Ile	Ser	Asp	Leu	Cys	Lys	Leu	Tyr	Asn	Leu	Pro	Gln	His
	115					120					125				
Pro	Asp	Val	Glu	Met	Leu	Asp	Gln	Pro	Leu	Pro	Ala	Glu	Gln	Cys	Thr
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Gln	Glu	Asp	Val	Ser	Ser	Glu	Asp	Glu	Asp	Glu	Glu	Met	Pro	Glu	Asp
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Thr	Glu	Asp	Leu	Asp	His	Tyr	Glu	Met	Lys	Glu	Glu	Glu	Pro	Ala	Glu
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Gly	Lys	Lys	Ser	Glu	Asp	Asp	Gly	Ile	Gly	Lys	Glu	Asn	Leu	Ala	Ile
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	195					200					205				
Val	Ser	Gly	Ser	Val	Gln	Ala	Thr	Asp	Arg	Leu	Met	Lys	Glu	Leu	Gln
	210					215					220				
Gly	Tyr	Ile	Thr	Xaa	Ser	Gln	Ser	Phe	Lys	Gly	Gly	Asn	Tyr	Xaa	Ser
225					230					235				240	
Ser	Asn	Ser	Trp	Asn	Asp	Ser	Leu	Tyr	Gly	Trp	Asp	Val	Gln	Leu	Leu
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Lys	Val	Asp	Gln	Gly	Ser	Val									
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<211> 603

<212> DNA

<213> Homo sapiens

<400> 3075

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<400> 3076

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20          25          30
Val Gly Pro Gln Lys Lys Lys Lys Lys Lys Lys Val Leu Gly Gly
35          40          45
Gly Arg Phe Gly Gln Val His Arg Cys Thr Glu Lys Ser Thr Gly Leu
50          55          60
Ala Leu Ala Ala Lys Ile Ile Lys Val Lys Asn Val Lys Asp Arg Glu
65          70          75          80
Asp Val Lys Asn Glu Val Asn Ile Met Asn Gln Leu Ser His Val Asn
85          90          95
Leu Ile Gln Leu Tyr Asp Ala Phe Glu Ser Lys Ser Ser Phe Thr Leu
100         105         110
Ile Met Glu Tyr Val Asp Gly Gly Glu Leu Phe Asp Arg Ile Thr Asp
115         120         125
Glu Lys Tyr His Leu Thr Glu Leu Asp Val Val Leu Phe Thr Arg Gln
130         135         140
Ile Cys Glu Gly Val His Tyr Leu His Gln His Tyr Ile Leu His Leu
145         150         155         160
Asp Leu Lys Pro Glu Asn Ile Leu Cys Val Ser Gln Thr Gly His Gln

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 <212> DNA
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<400> 3077
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<210> 3078

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3078

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Val	Gly	Ala	Leu	Pro	Arg	Gly	Pro	Arg	Gln	Asn	Ser	Arg	Leu	Gly	Leu
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Pro	Leu	Leu	Leu	Met	Pro	Glu	Ala	Arg	Leu	Leu	Ala	Glu	Ile	Gly	
	50					55				60					
Ala	Val	Thr	Leu	Val	Ser	Ala	Pro	Arg	Pro	Asp	Ser	Arg	His	His	Ser
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Leu	Ala	Leu	Thr	Ser	Phe	Lys	Arg	Gln	Gln	Glu	Glu	Ser	Phe	Gln	Glu
				85					90					95	
Gln	Ser	Ala	Leu	Ala	Ala	Glu	Ala	Arg	Glu	Thr	Arg	Arg	Gln	Glu	Leu
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Leu	Glu	Lys	Ile	Thr	Glu	Gly	Gln	Ala	Ala	Lys	Lys	Gln	Lys	Leu	Glu
		115					120					125			
Gln	Ala	Ser	Gly	Ala	Ser	Ser	Ser	Gln	Glu	Ala	Gly	Ser	Ser	Gln	Ala
	130					135					140				
Ala	Lys	Glu	Asp	Glu	Thr	Ser	Asp	Gly	Gln	Ala	Ser	Gly	Glu	Gln	Glu
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				165					170					175	
Pro	Leu	Pro	Arg	Ser	Ala	Leu	Leu	Val	Gln	Leu	Ala	Thr	Ala	Arg	Pro
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Arg	Pro	Val	Lys	Ala	Arg	Pro	Leu	Asp	Trp	Arg	Val	Gln	Ser	Lys	Asp
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	210					215					220				
Arg	Asp	Leu	Trp	Glu	Arg	Gly	Phe	Phe	Leu	Ser	Ala	Ala	Gly	Lys	Phe
225				230						235				240	
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				245					250					255	
His	Tyr	Ile	Ala	Gln	Cys	Trp	Ala	Pro	Glu	Asp	Thr	Ile	Pro	Leu	Gln
			260					265					270		
Asp	Leu	Val	Ala	Ala	Gly	Arg	Leu	Gly	Thr	Ser	Val	Arg	Lys	Thr	Leu
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<210> 3079

<211> 1785

<212> DNA

<213> Homo sapiens

<400> 3079

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<211> 500

<212> PRT

<213> Homo sapiens

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Val	Ser	Gln	Val	Gln	Pro	Pro	Pro	Ser	Lys	Ala	Ser	Ala	Pro	Glu	Pro
		35					40					45			
Pro	Ala	Glu	Glu	Glu	Val	Ala	Thr	Gly	Thr	Thr	Ser	Ala	Ser	Asp	Asp
	50					55					60				
Leu	Glu	Ala	Leu	Gly	Thr	Leu	Ser	Leu	Gly	Thr	Thr	Glu	Glu	Lys	Ala
65				70					75					80	
Ala	Ala	Glu	Ala	Ala	Val	Pro	Arg	Thr	Ile	Gly	Ala	Glu	Leu	Met	Glu
			85					90						95	
Leu	Val	Arg	Arg	Asn	Thr	Gly	Leu	Ser	His	Glu	Leu	Cys	Arg	Val	Ala
			100					105					110		
Ile	Gly	Ile	Ile	Val	Gly	His	Ile	Gln	Ala	Ser	Val	Pro	Ala	Ser	Ser
	115						120					125			
Pro	Val	Met	Glu	Gln	Val	Leu	Leu	Ser	Leu	Val	Glu	Gly	Lys	Asp	Leu
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Ser	Met	Ala	Leu	Pro	Ser	Gly	Gln	Val	Cys	His	Asp	Gln	Gln	Arg	Leu
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Val	Ser	Ser	Val	Leu	Pro	Val	Glu	Leu	Ala	Arg	Asp	Met	Gln	Thr	Asp
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Thr	Gln	Asp	His	Gln	Lys	Leu	Cys	Tyr	Ser	Ala	Leu	Ile	Leu	Ala	Met
	275					280					285				
Val	Phe	Ser	Met	Gly	Glu	Ala	Val	Pro	Tyr	Ala	His	Tyr	Glu	His	Leu

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 Glu Pro Gln Pro Pro His Ser Val Leu Lys Phe Leu Gln Asp Val Phe
 385 390 395 400
 Gly Ser Pro Ala Thr Ala Ala Ile Phe Tyr His Thr Asp Met Met Ala
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 420 425 430
 Lys Gly Pro Phe Gly Ala Gly Gln Arg Pro Trp Pro Gly Val Pro Arg
 435 440 445
 Leu Leu Glu Pro Gly Ser Thr Pro Ser Arg Glu Pro His Pro Val Glu
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 Arg Ser Gly Val Pro Ala Leu Thr Ser Ser Trp Ala Ser Gly Cys Pro
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<210> 3081

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 3081

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 540
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 720
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 780
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 1260
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 1380
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 1620
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 1740
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 1800
 accggcggct cccgggcgcc tcagtctctg acaggagcct ccaccacagg ctgtgtgaat
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<210> 3082

<211> 414

<212> PRT

<213> Homo sapiens

<400> 3082

Met Asp Asp Met Gly Leu Val Ala Lys Ala Cys Gly Cys Pro Leu Tyr
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 Trp Lys Gly Pro Leu Phe Tyr Gly Ala Gly Gly Glu Arg Thr Gly Ser


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<210> 3083
<211> 610
<212> DNA
<213> Homo sapiens
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<400> 3083

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 120
 gactgggcag gccgggcccg ggcactgggt ggtgacagtc atacttcgtg gagcccagcg
 180
 agcatcccgg gcaagcacta ccaggctgtg ggtctgcacc tctggaaggt agagaagcgg
 240
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 300
 tacgaccggg aggtccacct gcgttgtgag ctctcaccgg gctactacct ggctgtcccc
 360
 agcaccttcc tgaaggacgc gccaggggag ttcctgctcc gagtcttctc taccggggcga
 420
 gtctccctta ggtgagagga accgcgcagt gctgctggct ctccgaggcc acaggccctt
 480
 ccaaggcagg atttgggcac tttccctctg tggttggcag gtgtccatgt gggaaactgag
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<210> 3084

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3084

Xaa	Arg	Pro	Ser	Cys	Trp	Glu	Pro	Val	Arg	Pro	Ser	Gly	Ser	Ser	His
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Leu	Ser	Trp	His	Arg	Gly	Pro	Pro	Cys	Glu	Val	Tyr	Ile	Ala	Val	Leu
			20					25					30		
Gln	Arg	Ser	Arg	Leu	His	Ala	Ala	Asp	Trp	Ala	Gly	Arg	Ala	Arg	Ala
			35				40					45			
Leu	Val	Gly	Asp	Ser	His	Thr	Ser	Trp	Ser	Pro	Ala	Ser	Ile	Pro	Gly
	50					55				60					
Lys	His	Tyr	Gln	Ala	Val	Gly	Leu	His	Leu	Trp	Lys	Val	Glu	Lys	Arg
65				70					75					80	
Arg	Val	Asn	Leu	Pro	Arg	Val	Leu	Ser	Met	Pro	Pro	Val	Ala	Gly	Thr
			85					90						95	
Ala	Cys	His	Ala	Tyr	Asp	Arg	Glu	Val	His	Leu	Arg	Cys	Glu	Leu	Ser
			100					105					110		
Pro	Gly	Tyr	Tyr	Leu	Ala	Val	Pro	Ser	Thr	Phe	Leu	Lys	Asp	Ala	Pro
		115				120						125			
Gly	Glu	Phe	Leu	Leu	Arg	Val	Phe	Ser	Thr	Gly	Arg	Val	Ser	Leu	Arg
	130					135					140				

<210> 3085

<211> 1080

<212> DNA

<213> Homo sapiens

<400> 3085

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120
caaaagataa gaaaatggaa attaaggga atctgttcag caacaaagat cttgaggaat
180
tatgcagaca tatcaacaac agaaaccaag cagcacagca ttctcagaag cagtctactg
240
agctcttcca gtgcatgtac ttcaaagaca aagaccctgc caccgaggag cgttgcatat
300
ctgacggagt tatttattca attagaacaa atgggtgtgct tctatttata ccaagggttg
360
ggattaaagg tgctgcttat ctaaaaaata aagatgggtt agtcatctca tgtggccag
420
atagctgttc tgaatggaaa ccaggatccc ttcaacgatt tcaaaacaaa attacctcta
480
ctacaacaga tggggaatct gttacgttcc atttgtttga ccatgtaacc gtaagaatat
540
ccatacaggc ctcacgttgc cattctgata caatcagact tgaaataatt agtaacaaac
600
catacaagat accaaatata gaacttattc atcagagttc ccccttgctg aagagtgagt
660
tagtgaaaga agtaactaaa tctgtggaag aagctcagct tgccaagaa gtcaaagtaa
720
acatcattca ggaggaatat caagaatata gccaaacaaa gggaaggagc ctatacacac
780
ttctagagga gatacgggac ctagctctcc tggatgtttc aaacaattat ggaatatgag
840
aggctcttac ttcactaaga gctgtcatat gtgaatgttt tacagtcttt tcaaaactaa
900
catttaatgt gtgtcactca gtgctctagt cgatcaggac tgggtagcta tttcgcatat
960
atgtanaatg ttctcagccg ggcacgggtg ctcacgcctg taaccccagc actttgggag
1020
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<210> 3086

<211> 58

<212> PRT

<213> Homo sapiens

<400> 3086

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Met Cys Val Thr Gln Cys Ser Ser Arg Ser Gly Leu Gly Ser Tyr Phe
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Ala Tyr Met Xaa Asn Val Leu Ser Arg Ala Arg Trp Leu Thr Pro Val
20          25          30
Thr Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Arg Gly Gln Glu
35          40          45
Ile Glu Thr Ile Leu Ala Asn Thr Val Lys
50          55

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<210> 3087

<211> 2329

<212> DNA

<213> Homo sapiens

<400> 3087

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120
gtggaggtgg agccgcccc agatcggcca gtccgagcgt gccggacaca gcagccggaa
180
atggagcgca cccatattca gcaactcctg gaacacttcc tccgccagct tcagagaaaa
240
gatcccatg gattttttgc ttttcctgtc acggatgcaa ttgctcctgg atattcaatg
300
ataataaaac atcccatgga ttttggcacc atgaaagaca aaattgtagc taatgaatac
360
aagtcagtta cggaatttaa ggcagatttc aagctgatgt gtgataatgc aatgacatac
420
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480
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540
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660
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720
cggttcctcc caggcggcaa gatgggctat ctgaagagga acggggacgg gagcctgctc
780
tacagcgtgg tcaacacggc cgagccgaac gctgatgagg aggagacca cccggtgact
840
tgagctcgct ctccagtaag ctactcccag gcttcaccac gctgggcttc aaagacgaga
900
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960
cagtatttgg cgacttgaag tcggacgaga tggagctgct ctactcagcc tacggagatg
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1080
gcaagaaagt ggtggacgac ctctggacc agatcacagg cggagaccac tctaggacgc
1140
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1260
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1320
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1380
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1440

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 1620
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 1920
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 1980
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 2100
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 2160
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 2220
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 2280
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 2329

<210> 3088

<211> 280

<212> PRT

<213> Homo sapiens

<400> 3088

Xaa	Glu	Lys	His	Leu	Asp	Asp	Glu	Glu	Arg	Arg	Lys	Arg	Lys	Glu	Glu
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Lys	Lys	Arg	Lys	Arg	Glu	Arg	Glu	His	Cys	Asp	Thr	Glu	Gly	Glu	Ala
			20					25					30		
Asp	Asp	Phe	Asp	Pro	Gly	Lys	Lys	Val	Glu	Val	Glu	Pro	Pro	Pro	Asp
		35					40				45				
Arg	Pro	Val	Arg	Ala	Cys	Arg	Thr	Gln	Gln	Pro	Glu	Met	Glu	Arg	Thr
	50					55				60					
His	Ile	Gln	Gln	Leu	Leu	Glu	His	Phe	Leu	Arg	Gln	Leu	Gln	Arg	Lys
65				70					75					80	
Asp	Pro	His	Gly	Phe	Ala	Phe	Pro	Val	Thr	Asp	Ala	Ile	Ala	Pro	
			85					90				95			
Gly	Tyr	Ser	Met	Ile	Ile	Lys	His	Pro	Met	Asp	Phe	Gly	Thr	Met	Lys
			100				105					110			
Asp	Lys	Ile	Val	Ala	Asn	Glu	Tyr	Lys	Ser	Val	Thr	Glu	Phe	Lys	Ala
		115				120					125				
Asp	Phe	Lys	Leu	Met	Cys	Asp	Asn	Ala	Met	Thr	Tyr	Asn	Arg	Pro	Asp

130		135		140
Thr Val Tyr Tyr Lys Leu Ala Lys Lys Ile Leu His Ala Gly Phe Lys				
145		150		155
Met Met Ser Lys Gln Ala Ala Leu Leu Gly Asn Glu Asp Thr Ala Val				160
	165		170	175
Glu Glu Pro Val Pro Glu Val Val Pro Val Gln Val Glu Thr Ala Lys				
	180		185	190
Lys Ser Lys Lys Pro Ser Arg Glu Val Ile Ser Cys Met Phe Glu Pro				
	195		200	205
Glu Gly Asn Ala Cys Ser Leu Thr Asp Ser Thr Ala Glu Glu His Val				
	210		215	220
Leu Ala Leu Val Glu His Ala Ala Asp Glu Ala Arg Asp Arg Ile Asn				
225		230		235
Arg Phe Leu Pro Gly Gly Lys Met Gly Tyr Leu Lys Arg Asn Gly Asp				240
	245		250	255
Gly Ser Leu Leu Tyr Ser Val Val Asn Thr Ala Glu Pro Asn Ala Asp				
	260		265	270
Glu Glu Glu Thr His Pro Val Thr				
	275		280	

<210> 3089

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3089

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120
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180
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240
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300
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360
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420
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480
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540
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600
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660
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720
ca
722

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<210> 3090

<211> 240

<212> PRT

<213> Homo sapiens

<400> 3090

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 Thr Ser Met Glu Gly Asp Val Leu Asp Thr Leu Glu Ala Leu Gly Tyr
 20 25 30
 Lys Gly Pro Leu Leu Glu Glu Gln Ala Leu Thr Lys Ala Ala Glu Gly
 35 40 45
 Gly Leu Ser Ser Pro Glu Phe Ser Glu Leu Cys Ile Trp Leu Gly Ser
 50 55 60
 Gln Ile Lys Ser Leu Cys Asn Leu Glu Glu Ser Ile Thr Ser Ala Gly
 65 70 75 80
 Arg Asp Asp Leu Glu Ser Phe Gln Leu Glu Ile Ser Gly Phe Leu Lys
 85 90 95
 Glu Met Ala Cys Pro Tyr Ser Val Leu Val Ser Gly Asp Ile Lys Glu
 100 105 110
 Arg Leu Thr Lys Lys Asp Asp Cys Leu Lys Leu Leu Leu Phe Leu Ser
 115 120 125
 Thr Glu Leu Gln Ala Leu Gln Ile Leu Gln Asn Lys Lys His Lys Asn
 130 135 140
 Ser Gln Leu Asp Lys Asn Ser Glu Val Tyr Gln Glu Val Gln Ala Met
 145 150 155 160
 Phe Asp Thr Leu Gly Ile Pro Lys Ser Thr Thr Ser Asp Ile Pro His
 165 170 175
 Met Leu Asn Gln Val Glu Ser Lys Val Lys Asp Ile Leu Ser Lys Val
 180 185 190
 Gln Lys Asn His Val Gly Lys Pro Leu Leu Lys Met Asp Leu Asn Ser
 195 200 205
 Glu Gln Ala Glu Gln Leu Glu Arg Ile Asn Asp Ala Leu Ser Cys Glu
 210 215 220
 Tyr Glu Cys Arg Arg Arg Met Leu Met Lys Arg Leu Asp Val Thr Val
 225 230 235 240

<210> 3091

<211> 333

<212> DNA

<213> Homo sapiens

<400> 3091

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 120
 cccagggcga ccccttctgc caagtgtccc aaaatgattg ctaaatgcct ggctccccc
 180
 ctctttgact ccattctctg gttccctctt tctgctgcca gctccccga ctcttccctg
 240
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 300
 ttccataccc atccctgcct cctgctcgg ccg
 333

<210> 3092
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 3092
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 Lys Gly Asp Thr Lys Arg Ser Pro Gln Gly Arg Val Gly Gly Ala Gly
 20 25 30
 Ser Arg Lys Arg Glu Pro Arg Asp Gly Val Lys Glu Trp Gly Ser Gln
 35 40 45
 Ala Phe Ser Asn His Phe Gly Thr Leu Gly Arg Arg Gly Arg Pro Gly
 50 55 60
 Gly Thr Lys Gly Leu Gly Cys Ser Leu Ser Val Pro Asp Pro Cys Gln
 65 70 75 80
 Ala Lys Met Val Trp Gln Arg Gly Glu Gln Leu Leu Pro Arg Ala Ser
 85 90 95
 Phe Pro Ser Ala Pro Phe Thr Arg
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<210> 3093
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 3093
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 120
 agggggcagc ctgtgggcag tgactctgtc tgtctttgga caggacaagg actgccatcc
 180
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 240
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 300
 ccgccactcc ctgaccaggt ggtcatcaag acacagacag aataccagct gtcctcccca
 360
 gaccagcaga atttcctga cctggagggc cagaggctga actgcagcca cccagaggaa
 420
 gggcgccaggc tgcccaccgc acggatgac gccttcgcca tggcgctact gggctgcgtg
 480
 ctgatcatgt acaaggccat ctggtacgac cagttcacct gccccgacgg cttcctgctg
 540
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 720

<210> 3094

<211> 179
 <212> PRT
 <213> Homo sapiens

<400> 3094
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 Leu Asp Ile Ser Gln Leu Gln Pro Pro Leu Pro Asp Gln Val Val Ile
 35 40 45
 Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser Pro Asp Gln Gln Asn Phe
 50 55 60
 Pro Asp Leu Glu Gly Gln Arg Leu Asn Cys Ser His Pro Glu Glu Gly
 65 70 75 80
 Arg Arg Leu Pro Thr Ala Arg Met Ile Ala Phe Ala Met Ala Leu Leu
 85 90 95
 Gly Cys Val Leu Ile Met Tyr Lys Ala Ile Trp Tyr Asp Gln Phe Thr
 100 105 110
 Cys Pro Asp Gly Phe Leu Leu Arg His Lys Ile Cys Thr Pro Leu Thr
 115 120 125
 Leu Glu Met Tyr Tyr Thr Glu Met Asp Pro Glu Arg His Arg Ser Ile
 130 135 140
 Leu Ala Ala Ile Gly Ala Tyr Pro Leu Ser Arg Lys His Gly Thr Glu
 145 150 155 160
 Thr Pro Ala Ala Trp Gly Asp Gly Tyr Arg Ala Ala Lys Glu Glu Arg
 165 170 175
 Lys Gly Pro

<210> 3095
 <211> 519
 <212> DNA
 <213> Homo sapiens

<400> 3095
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 120
 gggtttgacg aggtctttgt catcagcctg gctcgcaggc ctgaccgtcg ggaacgcatg
 180
 ctgcctcgc tctgggagat ggagatctct gggaggggtg tggatgctgt ggatggctgg
 240
 atgctcaaca gcagtgccat caggaacctc ggcgtagacc tgcctccggg ctaccaggac
 300
 ccttactcgg gccgcactct gaccaagggc gaggtgggct gcttctcag ccattactcc
 360
 atctgggaag agcgagcagt acaaggcaca cttctggcca cgggacctgg tggccttctc
 420
 cgcccagccc ctgctcgtg cccctaccca ctatgccggg gacgccgagt ggctcagtga
 480
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 519

<210> 3096
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 3096
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 20 25 30
 Pro Ser Lys Arg Pro Ser Lys Ile Gly Phe Asp Glu Val Phe Val Ile
 35 40 45
 Ser Leu Ala Arg Arg Pro Asp Arg Arg Glu Arg Met Leu Ala Ser Leu
 50 55 60
 Trp Glu Met Glu Ile Ser Gly Arg Val Val Asp Ala Val Asp Gly Trp
 65 70 75 80
 Met Leu Asn Ser Ser Ala Ile Arg Asn Leu Gly Val Asp Leu Leu Pro
 85 90 95
 Gly Tyr Gln Asp Pro Tyr Ser Gly Arg Thr Leu Thr Lys Gly Glu Val
 100 105 110
 Gly Cys Phe Leu Ser His Tyr Ser Ile Trp Glu Glu Arg Ala Val Gln
 115 120 125
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<211> 1359

<212> PRT

<213> Homo sapiens

<400> 3098

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2313

2314

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	980	985
Leu Arg Cys Asp Asp Glu Lys Glu Gln Phe Leu Tyr His Leu Leu Ser		990
	995	1000
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Glu Cys Gln Asn Leu Gly Lys Leu Thr Thr Val Gln Ile Gly His Asp		1070
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Pro Arg Asn Ile Gly Lys Asp Gly Lys Phe Gln Met Leu Val Cys Leu		1280
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His Thr Leu Val Asn Ser Leu Ile Arg Val Leu Gln Thr Leu Gln Glu		1325
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<210> 3100
 <211> 159
 <212> PRT
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 Gly Lys Ile Met Cys Lys Ile Thr Ser Ala Leu Tyr Thr Leu Asn Phe

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Ile Ile Cys Phe Cys Val Trp Met Ala Ala Ile Leu Leu Ser Ile Pro
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Gln Leu Val Phe Tyr Thr Val Asn Asp Asn Ala Arg Cys Ile Pro Ile
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<210> 3101

<211> 2623

<212> DNA

<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 3102

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Gly Gly Thr Thr Phe Gly Arg His Leu Val Gln Asn Val Arg Leu Glu
      100           105           110
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Pro Asn Arg Arg Glu Thr Trp Leu Phe Ser Arg Phe Ser Thr Gly Trp
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Gly Val Leu Asp Arg Arg Asp Ser Ala Ala Leu Arg Thr Pro Arg Lys
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Arg Thr Phe Asn Leu Lys Phe Ile Arg Pro Phe Met Gln Tyr Asn Ser
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 <211> 1228
 <212> DNA
 <213> Homo sapiens

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<213> Homo sapiens

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<210> 3108

<211> 517

<212> PRT

<213> Homo sapiens

<400> 3108

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			20					25					30		
Pro	Lys	His	Trp	Thr	Lys	Glu	Arg	His	Gln	Phe	Leu	Met	Glu	Leu	Lys
		35					40					45			
Gln	Glu	Ala	Leu	Thr	Phe	Ala	Arg	Asn	Trp	Gly	Ala	Asp	Tyr	Ile	Leu
		50				55					60				
Phe	Ala	Asp	Thr	Asp	Asn	Ile	Leu	Thr	Asn	Asn	Gln	Thr	Leu	Arg	Leu
65					70				75					80	
Leu	Met	Gly	Gln	Gly	Leu	Pro	Val	Val	Ala	Pro	Met	Leu	Asp	Ser	Gln
			85					90					95		
Thr	Tyr	Tyr	Ser	Asn	Phe	Trp	Cys	Gly	Ile	Thr	Pro	Gln	Gly	Tyr	Tyr
			100					105					110		
Arg	Arg	Thr	Ala	Glu	Tyr	Phe	Pro	Thr	Lys	Asn	Arg	Gln	Arg	Arg	Gly
		115					120					125			
Cys	Phe	Arg	Val	Pro	Met	Val	His	Ser	Thr	Phe	Leu	Ala	Ser	Leu	Arg
		130				135					140				
Ala	Glu	Gly	Ala	Asp	Gln	Leu	Ala	Phe	Tyr	Pro	Pro	His	Pro	Asn	Tyr
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			165					170					175		
Ala	Gly	Val	Ser	Val	His	Val	Cys	Asn	Glu	His	Arg	Tyr	Gly	Tyr	Met

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Phe Ile His Leu Ile Leu Glu Ala Leu Val Asp Gly Pro Arg Met Gln		
210	215	220
Ala Ser Ala His Val Thr Arg Pro Ser Lys Arg Pro Ser Lys Ile Gly		
225	230	235
Phe Asp Glu Val Phe Val Ile Ser Leu Ala Arg Arg Pro Asp Arg Arg		
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260	265	270
Val Asp Ala Val Asp Gly Trp Met Leu Asn Ser Ser Ala Ile Arg Asn		
275	280	285
Leu Gly Val Asp Leu Leu Pro Gly Tyr Gln Asp Pro Tyr Ser Gly Arg		
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Thr Leu Thr Lys Gly Glu Val Gly Cys Phe Leu Ser His Tyr Ser Ile		
305	310	315
Trp Glu Glu Val Val Ala Arg Gly Leu Ala Arg Val Leu Val Phe Glu		
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Asp Asp Val Arg Phe Glu Ser Asn Phe Arg Gly Arg Leu Glu Arg Leu		
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Gly Arg Lys Gln Val Asn Pro Glu Lys Glu Thr Ala Val Glu Gly Leu		
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Pro Gly Leu Val Val Ala Gly Tyr Ser Tyr Trp Thr Leu Ala Tyr Ala		
385	390	395
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405	410	415
Arg Met Leu Pro Val Asp Glu Phe Leu Pro Ile Met Phe Asp Gln His		
420	425	430
Pro Asn Glu Gln Tyr Lys Ala His Phe Trp Pro Arg Asp Leu Val Ala		
435	440	445
Phe Ser Ala Gln Pro Leu Leu Ala Ala Pro Thr His Tyr Ala Gly Asp		
450	455	460
Ala Glu Trp Leu Ser Asp Thr Glu Thr Ser Ser Pro Trp Asp Asp Asp		
465	470	475
Ser Gly Arg Leu Ile Ser Trp Ser Gly Ser Gln Lys Thr Leu Arg Ser		
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<210> 3109

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3109

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120

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<211> 207

<212> PRT

<213> Homo sapiens

<400> 3110

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			20					25					30		
Trp	Ser	Pro	Asp	Gly	Arg	His	Ile	Leu	Asn	Thr	Thr	Glu	Phe	His	Leu
			35				40					45			
Arg	Ile	Thr	Val	Trp	Ser	Leu	Cys	Thr	Lys	Ser	Val	Ser	Tyr	Ile	Lys
	50					55				60					
Tyr	Pro	Lys	Ala	Cys	Leu	Gln	Gly	Ile	Thr	Phe	Thr	Arg	Asp	Gly	Arg
65				70				75				80			
Tyr	Met	Ala	Leu	Ala	Glu	Arg	Arg	Asp	Cys	Lys	Asp	Tyr	Val	Ser	Ile
			85					90				95			
Phe	Val	Cys	Ser	Asp	Trp	Gln	Leu	Leu	Arg	His	Phe	Asp	Thr	Asp	Thr
			100				105					110			
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	115					120					125				
Val	Trp	Asp	Thr	Cys	Leu	Glu	Tyr	Lys	Ile	Leu	Leu	Tyr	Ser	Leu	Asp
	130					135				140					
Gly	Arg	Leu	Leu	Ser	Thr	Tyr	Ser	Ala	Xaa	Arg	Val	Val	Xaa	Leu	Gly

145		150		155		160									
Ile	Lys	Ser	Val	Ala	Trp	Ser	Pro	Ser	Ser	Gln	Phe	Leu	Ala	Val	Gly
		165		170		175									
Ser	Tyr	Asp	Gly	Lys	Val	Arg	Ile	Leu	Asn	His	Val	Thr	Trp	Lys	Met
		180		185		190									
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<210> 3111

<211> 1269

<212> DNA

<213> Homo sapiens

<400> 3111

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1269

<210> 3112

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3112

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Glu Gly Arg Arg Gly Ala Arg Thr Ala Gly Leu Arg Gly Arg Pro Trp

35 40 45

Arg Asp Trp Glu Glu Arg Arg Gly Val Thr Thr Val Gln His Pro Glu

50 55 60

Lys Ser Asp Trp Gln Thr Arg Thr Gly Gln Pro Cys Ser Cys Met Ile

65 70 75 80

Gln Glu Leu Ala Ser Glu Arg Glu Ser Val Ala Glu Ala Gly Gly Ser

85 90 95

Ala Arg Gln Lys Val Arg Gly Leu Val Leu Arg Arg Gly Lys Arg Gln

100 105 110

Ser Glu Ser Leu His Ala Pro Gly Leu His Gly Arg Ala Arg Ala Ser

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Pro Tyr Gln Glu Thr Gly Ser

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<210> 3113

<211> 631

<212> DNA

<213> Homo sapiens

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120

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180

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240

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300

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360

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420

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480

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 <212> PRT
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 35 40 45
 Leu Leu Glu Arg Asn Ile Thr Val Thr Met Tyr Ile Thr Ile Gly Thr
 50 55 60
 Arg Asn Leu Gln Lys Tyr Val Ser Arg Thr Ser Val Val Phe Val Ser
 65 70 75 80
 Ile Ser Phe Ile Val Leu Met Ile Ile Ser Leu Ala Trp Leu Val Phe
 85 90 95
 Tyr Tyr Ile Gln Arg Phe Arg Tyr Ala Asn Ala Arg Asp Arg Asn Gln
 100 105 110
 Arg Arg Leu Gly Asp Ala Ala Lys Lys Ala Ile Ser Lys Leu Gln Ile
 115 120 125
 Arg Thr Ile Lys Lys Gly Asp Lys Glu Thr Glu Ser Asp Phe Asp Asn
 130 135 140
 Cys Ala Val Cys Ile Glu Gly Tyr Lys Pro Asn Asp Val Val Arg Ile
 145 150 155 160
 Leu Pro Cys Arg His Leu Phe His Lys Ser Cys Val Asp Pro Trp Leu
 165 170 175
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 Phe Glu
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<210> 3115
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 <212> DNA
 <213> Homo sapiens

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 180

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 240
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 420
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 1366

<210> 3116

<211> 191

<212> PRT

<213> Homo sapiens

<400> 3116

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			20					25					30		
Leu	Leu	Tyr	Ser	Ser	Gly	Leu	Val	Glu	Cys	Glu	Asp	Gln	Asp	Pro	Leu
			35				40					45			
Asn	Pro	Asp	Arg	Ser	Phe	Asp	Val	Glu	Ser	Val	Lys	Lys	Glu	Ile	Gln

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65	70	75
Val Gly Cys Asp Leu Lys Asn Cys Asn Lys Asn Tyr His Phe Phe Cys		80
	85	90
Ala Lys Lys Asp Asp Ala Val Pro Gln Ser Asp Gly Val Arg Gly Ile		95
	100	105
Tyr Lys Leu Leu Cys Gln Gln His Ala Gln Phe Pro Ile Ile Ala Gln		110
	115	120
Ser Gly Lys Phe Ser Gly Val Lys Arg Lys Arg Gly Arg Lys Lys Pro		125
	130	135
Leu Ser Gly Asn His Val Gln Pro Pro Glu Thr Met Lys Cys Asn Thr		140
145	150	155
Phe Ile Arg Gln Val Lys Glu Glu His Gly Arg His Thr Asp Ala Thr		160
	165	170
Val Lys Val Pro Phe Leu Lys Lys Cys Lys Xaa Ser Arg Thr Ser		175
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<210> 3117

<211> 1373

<212> DNA

<213> Homo sapiens

<400> 3117

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<210> 3118

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3118

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			20					25					30		
Ala	Asp	Thr	Val	His	Leu	Ala	Val	Glu	Phe	Phe	Asn	Leu	Thr	His	Leu
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Pro	Ala	Asn	Leu	Leu	Gln	Gly	Ala	Ser	Lys	Leu	Gln	Glu	Leu	His	Leu
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	210					215					220				
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                245                250                255
Asp Gly Phe Asp Ile Ser Gly Asn Pro Trp Ile Cys Asp Gln Asn Leu
                260                265                270
Ser Asp Leu Tyr Arg Trp Leu Gln Ala Gln Lys Asp Lys Met Phe Ser
                275                280                285
Gln Asn Asp Thr Arg Cys Ala Gly Pro Glu Ala Val Lys Gly Gln Thr
                290                295                300
Leu Leu Ala Val Ala Lys Ser Gln
305                310

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<210> 3119
 <211> 427
 <212> DNA
 <213> Homo sapiens

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<400> 3119
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tacgtggagg tgggtcccctg ttccacagag gagatgagcc gagtgctgat ggggggcacc
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ttgggcccga gtggcatgtc ccctccaccc tgcaagctgc cctgcctctc accacctacc
240
tacaccacct tccaagccac cccaacgctc attcccacgg agacggcagc tctatacccc
300
tcttcagcac tgctcccagc tgccagggtg cctgctgccc ccaccctgt tgctactat
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427

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<210> 3120
 <211> 142
 <212> PRT
 <213> Homo sapiens

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<400> 3120
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Ile Gln Met Thr Ser Ala Glu Arg Ala Leu Ala Ala Ala Gln Arg Cys
20          25          30
His Lys Lys Val Met Lys Glu Arg Tyr Val Glu Val Val Pro Cys Ser
35          40          45
Thr Glu Glu Met Ser Arg Val Leu Met Gly Gly Thr Leu Gly Arg Ser
50          55          60
Gly Met Ser Pro Pro Pro Cys Lys Leu Pro Cys Leu Ser Pro Pro Thr
65          70          75          80
Tyr Thr Thr Phe Gln Ala Thr Pro Thr Leu Ile Pro Thr Glu Thr Ala
85          90          95
Ala Leu Tyr Pro Ser Ser Ala Leu Leu Pro Ala Ala Arg Val Pro Ala
100         105         110
Ala Pro Thr Pro Val Ala Tyr Tyr Pro Gly Pro Ala Thr Gln Leu Tyr

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115 120 125
 Leu Asn Tyr Thr Ala Tyr Tyr Pro Ser Pro Glu Asp Asn Ala
 130 135 140

<210> 3121
 <211> 284
 <212> DNA
 <213> Homo sapiens

<400> 3121
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 120
 taagaggaac atgaacctgg acggggcagc ttccattgtc cctctcctgc tcctgctaata
 180
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 240
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 284

<210> 3122
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 3122
 Met Ala Ala Gly Thr Ser Val Ser His Val Gly Ser Trp Ala Ala Pro
 1 5 10 15
 Gly Pro Ser Glu Asp Phe Ser Thr Ser Ala Ala Thr Ser Ala Ala Ser
 20 25 30
 Ser His Val Arg Arg Asn Lys Arg Asn Met Asn Leu Asp Gly Ala Ala
 35 40 45
 Ser Ile Val Pro Leu Leu Leu Leu Leu Met Asn Lys Ala Ser Pro Glu
 50 55 60
 Tyr Glu Glu Asn Met His Arg Tyr Gln Lys Ala Ala Lys Leu Phe Arg
 65 70 75 80
 Gly Arg Phe Ser Leu Phe Trp Trp Thr Val Val
 85 90

<210> 3123
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 3123
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 gcagcccagg tgaccttcag aaagacattg gagaaggaag caaagggaga ggagcccgcac
 180
 atcgagctcc ccaagttcaa acagaggaag ggggagtccg acggggccta tatccaccgc
 240

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 300
 gaggtgcagg cagctcccaa ggagaagtct gagcagaaaa aagc
 344

<210> 3124
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 3124
 Met Arg Ser Arg Gln Glu Met Lys Asn Pro Ile Ser Asn Lys Lys Arg
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 Lys Lys Ala Ala Gln Val Thr Phe Arg Lys Thr Leu Glu Lys Glu Ala
 20 25 30
 Lys Gly Glu Glu Pro Asp Ile Ala Val Pro Lys Phe Lys Gln Arg Lys
 35 40 45
 Gly Glu Ser Asp Gly Ala Tyr Ile His Arg Met Gln Gln Glu Ala Gln
 50 55 60
 His Val Leu Phe Leu Ser Lys Asn Gln Ala Ile Arg Gln Pro Glu Val
 65 70 75 80
 Gln Ala Ala Pro Lys Glu Lys Ser Glu Gln Lys Lys
 85 90

<210> 3125
 <211> 647
 <212> DNA
 <213> Homo sapiens

<400> 3125
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 240
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 300
 atgtggcctc ggcccacgcc agaagccggg caaggtccca agtgccggct cgcccacaag
 360
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 420
 aacccatctt cctgtgttct ctgccaagag agctggagca aaagagatga gtttgagact
 480
 ctgattcatc catcaagaca aataaactca gtctatggag gttagcaggg caatttgtga
 540
 agcaaacaaa agttgagttt tggaaagggg ctctgaagaa aatgaagatg acataaccagg
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<210> 3126

<211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3126
 Met Lys Leu Asn Ser Trp Tyr Val Ile Phe Ile Phe Phe Arg Ala Pro
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 Phe Gln Asn Ser Thr Phe Val Cys Phe Thr Asn Cys Pro Ala Asn Leu
 20 25 30
 His Arg Leu Ser Leu Phe Val Leu Met Asp Glu Ser Glu Ser Gln Thr
 35 40 45
 His Leu Phe Cys Ser Ser Ser Leu Gly Arg Glu His Arg Lys Met Gly
 50 55 60
 Phe Ala Tyr Val Cys Val Trp Gly Gly Leu Phe Phe Leu Cys Phe Ser
 65 70 75 80
 Val Leu Ala Ile Ala Cys Gly Arg Ala Gly Thr Trp Asp Leu Ala Arg
 85 90 95
 Leu Leu Ala Trp Ala Glu Ala Thr Trp Gly Val Leu Pro Ser Thr Phe
 100 105 110
 Cys Asp Val Pro
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<210> 3127
 <211> 2218
 <212> DNA
 <213> Homo sapiens

<400> 3127
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 180
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 240
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2218

<210> 3128

<211> 565

<212> PRT

<213> Homo sapiens

<400> 3128

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 Gln Glu Gly Lys Ile Pro Asp Glu Thr Leu Glu Lys Leu Lys Ser Leu
 35 40 45
 Gly Leu Phe Gly Leu Gln Val Pro Glu Glu Tyr Gly Gly Leu Gly Phe
 50 55 60
 Ser Asn Thr Met Tyr Ser Arg Leu Gly Glu Ile Ile Ser Met Asp Gly
 65 70 75 80
 Ser Ile Thr Val Thr Leu Ala Ala His Gln Ala Ile Gly Leu Lys Gly
 85 90 95
 Ile Ile Leu Ala Gly Thr Glu Glu Gln Lys Ala Lys Tyr Leu Pro Lys
 100 105 110
 Leu Ala Ser Gly Glu His Ile Ala Ala Phe Cys Leu Thr Glu Pro Ala
 115 120 125
 Ser Gly Ser Asp Ala Ala Ser Ile Arg Ser Arg Ala Thr Leu Ser Glu
 130 135 140
 Asp Lys Lys His Tyr Ile Leu Asn Gly Ser Lys Val Trp Ile Thr Asn
 145 150 155 160
 Gly Gly Leu Ala Asn Ile Phe Thr Val Phe Ala Lys Thr Glu Val Val
 165 170 175
 Asp Ser Asp Gly Ser Val Lys Asp Lys Ile Thr Ala Phe Ile Val Glu
 180 185 190
 Arg Asp Phe Gly Gly Val Thr Asn Gly Lys Pro Glu Asp Lys Leu Gly
 195 200 205
 Ile Arg Gly Ser Asn Thr Cys Glu Val His Phe Glu Asn Thr Lys Ile
 210 215 220
 Pro Val Glu Asn Ile Leu Gly Glu Val Gly Asp Gly Phe Lys Val Ala
 225 230 235 240
 Met Asn Ile Leu Asn Ser Gly Arg Phe Ser Met Gly Ser Val Val Ala
 245 250 255
 Gly Leu Leu Lys Arg Leu Ile Glu Met Thr Ala Glu Tyr Ala Cys Thr
 260 265 270
 Arg Lys Gln Phe Asn Lys Arg Leu Ser Glu Phe Gly Leu Ile Gln Glu
 275 280 285
 Lys Phe Ala Leu Met Ala Gln Lys Ala Tyr Val Met Glu Ser Met Thr
 290 295 300
 Tyr Leu Thr Ala Gly Met Leu Asp Gln Pro Gly Phe Pro Asp Cys Ser
 305 310 315 320
 Ile Glu Ala Ala Met Val Lys Val Phe Ser Ser Glu Ala Ala Trp Gln
 325 330 335
 Cys Val Ser Glu Ala Leu Gln Ile Leu Gly Gly Leu Gly Tyr Thr Arg
 340 345 350
 Asp Tyr Pro Tyr Glu Arg Ile Leu Arg Asp Thr Arg Ile Leu Leu Ile
 355 360 365
 Phe Glu Gly Thr Asn Glu Ile Leu Arg Met Tyr Ile Ala Leu Thr Gly
 370 375 380
 Leu Gln His Ala Gly Arg Ile Leu Thr Thr Arg Ile His Glu Leu Lys
 385 390 395 400
 Gln Ala Lys Val Ser Thr Val Met Asp Thr Val Gly Arg Arg Leu Arg
 405 410 415
 Asp Ser Leu Gly Arg Thr Val Asp Leu Gly Leu Thr Gly Asn His Gly

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          420          425          430
Val Val His Pro Ser Leu Ala Asp Ser Ala Asn Lys Phe Glu Glu Asn
          435          440          445
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          450          455          460
Lys Thr Ile Met Glu Glu Gln Leu Val Leu Lys Arg Val Ala Asn Ile
465          470          475          480
Leu Ile Asn Leu Tyr Gly Met Thr Ala Val Leu Ser Arg Ala Ser Arg
          485          490          495
Ser Ile Arg Ile Gly Leu Arg Asn His Asp His Glu Val Leu Leu Ala
          500          505          510
Asn Thr Phe Cys Val Glu Ala Tyr Leu Gln Asn Leu Phe Ser Leu Ser
          515          520          525
Gln Leu Asp Lys Tyr Ala Pro Glu Asn Leu Asp Glu Gln Ile Lys Lys
          530          535          540
Val Ser Gln Gln Ile Leu Glu Lys Arg Ala Tyr Ile Cys Ala His Pro
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Leu Asp Arg Thr Cys
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<210> 3129

<211> 1964

<212> DNA

<213> Homo sapiens

<400> 3129

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840

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<210> 3130

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3130

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			20				25					30			
Gly	Pro	Gly	Ala	Ala	Gln	Glu	Pro	Thr	Trp	Leu	Thr	Asp	Val	Pro	Ala
		35				40				45					
Ala	Met	Glu	Phe	Ile	Ala	Ala	Thr	Glu	Val	Ala	Val	Ile	Gly	Phe	Phe
	50				55			60							
Gln	Asp	Leu	Glu	Ile	Pro	Ala	Val	Pro	Ile	Leu	His	Ser	Met	Val	Gln

65					70					75				80
Lys	Phe	Pro	Gly	Val	Ser	Phe	Gly	Ile	Ser	Thr	Asp	Ser	Glu	Val
				85					90				95	
Thr	His	Tyr	Asn	Ile	Thr	Gly	Asn	Thr	Ile	Cys	Leu	Phe	Arg	Leu
			100					105					110	
Asp	Asn	Glu	Gln	Leu	Asn	Leu	Glu	Asp	Glu	Asp	Ile	Glu	Ser	Ile
		115					120					125		
Ala	Thr	Lys	Leu	Ser	Arg	Phe	Ile	Glu	Ile	Asn	Ser	Leu	His	Met
		130				135					140			
Thr	Glu	Tyr	Asn	Pro	Val	Thr	Val	Ile	Gly	Leu	Phe	Asn	Ser	Val
145				150					155					160
Gln	Ile	His	Leu	Leu	Ile	Met	Asn	Lys	Ala	Ser	Pro	Glu	Tyr	Glu
			165					170					175	
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			180					185					190	
Ile	Leu	Phe	Ile	Leu	Val	Asp	Ser	Gly	Met	Lys	Glu	Asn	Gly	Lys
		195					200					205		
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	210					215				220				
Tyr	Gln	Thr	Leu	Asp	Asp	Glu	Trp	Asp	Thr	Leu	Pro	Thr	Ala	Glu
225				230						235				240
Ser	Val	Glu	His	Val	Gln	Asn	Phe	Cys	Asp	Gly	Phe	Leu	Ser	Gly
			245					250					255	
Leu	Leu	Lys	Glu	Asn	Arg	Glu	Ser	Lys	Arg	Lys	Thr	Pro	Lys	Val
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Leu														

<210> 3131

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 3131

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180
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600

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 1440
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<210> 3132

<211> 283

<212> PRT

<213> Homo sapiens

<400> 3132

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Gly	Ser	Thr	Gly	Thr	Ala	Glu	Gly	Gly	Asn	Met	Ser	Arg	Leu	Ser	Leu
			20					25					30		
Thr	Arg	Ser	Pro	Val	Ser	Pro	Leu	Ala	Ala	Gln	Gly	Ile	Pro	Leu	Pro
			35				40					45			
Ala	Gln	Leu	Thr	Lys	Ser	Asn	Ala	Pro	Val	His	Ile	Asp	Val	Gly	Gly
		50				55					60				
His	Met	Tyr	Thr	Ser	Ser	Leu	Ala	Thr	Leu	Thr	Lys	Tyr	Pro	Glu	Ser
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Arg	Ile	Gly	Arg	Leu	Phe	Asp	Gly	Thr	Glu	Pro	Ile	Val	Leu	Asp	Ser
				85				90						95	
Leu	Lys	Gln	His	Tyr	Phe	Ile	Asp	Arg	Asp	Gly	Gln	Met	Phe	Arg	Tyr
			100				105					110			
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Arg Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp		160
	165	170
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu Glu		175
	180	185
Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn Ala Gly		190
	195	200
Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu Asn Gly Tyr		205
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Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu Gln Gln Arg Gly		220
225	230	235
Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val Asp Ser Ser Gln Phe		240
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Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg Arg Thr Pro Arg Val Pro		255
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 <212> DNA
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<213> Homo sapiens

<400> 3134

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 Asp Phe Met
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<211> 3166

<212> DNA

<213> Homo sapiens

<400> 3135

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<211> 278

<212> PRT

<213> Homo sapiens

<400> 3136

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			20					25					30		
Lys	Cys	Pro	Ile	Cys	Gln	Thr	Val	Lys	Ala	Asn	Gln	Leu	Glu	Leu	Glu
		35				40					45				
Thr	His	Thr	Arg	Glu	His	Arg	Leu	Gly	Asn	His	Tyr	Lys	Cys	Asp	Gln
	50				55					60					
Cys	Gly	Tyr	Leu	Ser	Lys	Thr	Ala	Asn	Lys	Leu	Ile	Glu	His	Val	Arg
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Val	His	Thr	Gly	Ser	Gly	Pro	Phe	His	Trp	Asp	Gln	Cys	Ser	Tyr	Ser
			85					90					95		
Cys	Lys	Arg	Lys	Asp	Asn	Leu	Asn	Leu	His	Lys	Lys	Leu	Lys	His	Ala
			100				105						110		
Pro	Arg	Gln	Thr	Phe	Ser	Cys	Glu	Glu	Cys	Leu	Phe	Lys	Thr	Thr	His
		115				120					125				
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			165					170					175		
Ser	Pro	Leu	Ser	Val	Met	Ser	Ala	Ser	Gln	Ala	Leu	Gln	Thr	Val	Ala
		180					185						190		
Leu	Ser	Ala	Ala	His	Gly	Ser	Ser	Ser	Glu	Pro	Asn	Leu	Ala	Leu	Lys
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	210				215					220					
Ser	Asp	Phe	Ala	His	Leu	Ile	Pro	Leu	Thr	Met	Leu	Tyr	Pro	Lys	Asn
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<211> 977

<212> PRT

<213> Homo sapiens

<400> 3138

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 Tyr Met Gln Pro Gly Leu Pro Glu Ser Leu Leu Ser Val Asp Asp Asp
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 Gly His Leu Met Glu Ser Lys Leu Gln Tyr Tyr Val Pro Glu Asn Phe
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 Trp Lys Ile Phe Lys Met Trp Asn Lys Glu Leu Tyr Val Arg Glu Gln
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 145 150 155 160
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 180 185 190
 Gln Ser Leu Glu Ile Ser Leu Asp Gln Phe Val Arg Gly Glu Val Leu
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 Glu Gly Ser Asn Ala Tyr Tyr Cys Glu Lys Cys Lys Glu Lys Arg Ile
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 225 230 235 240
 His Leu Met Arg Phe Gly Phe Asp Trp Glu Ser Gly Arg Ser Ile Lys
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 Tyr Asp Glu Gln Ile Arg Phe Pro Trp Met Leu Asn Met Glu Pro Tyr
 260 265 270
 Thr Val Ser Gly Met Ala Arg Gln Asp Ser Ser Ser Glu Val Gly Glu
 275 280 285
 Asn Gly Arg Ser Val Asp Gln Gly Gly Gly Gly Ser Pro Arg Lys Lys
 290 295 300
 Val Ala Leu Thr Glu Asn Tyr Glu Leu Val Gly Val Ile Val His Ser
 305 310 315 320
 Gly Gln Ala His Ala Gly His Tyr Tyr Ser Phe Ile Lys Asp Arg Arg
 325 330 335
 Gly Cys Gly Lys Gly Lys Trp Tyr Lys Phe Asn Asp Thr Val Ile Glu
 340 345 350
 Glu Phe Asp Leu Asn Asp Glu Thr Leu Glu Tyr Glu Cys Phe Gly Gly
 355 360 365
 Glu Tyr Arg Pro Lys Val Tyr Asp Gln Thr Asn Pro Tyr Thr Asp Val
 370 375 380
 Arg Arg Arg Tyr Trp Asn Ala Tyr Met Leu Phe Tyr Gln Arg Val Ser
 385 390 395 400
 Asp Gln Asn Ser Pro Val Leu Pro Lys Lys Ser Arg Val Ser Val Val
 405 410 415
 Arg Gln Glu Ala Glu Asp Leu Ser Leu Ser Ala Pro Ser Ser Pro Glu
 420 425 430
 Ile Ser Pro Gln Ser Ser Pro Arg Pro His Arg Pro Asn Asn Asp Arg
 435 440 445
 Leu Ser Ile Leu Thr Lys Leu Val Lys Lys Gly Glu Lys Lys Gly Leu

450		455		460
Phe Val Glu Lys Met	Pro Ala Arg Ile Tyr	Gln Met Val Arg Asp Glu		
465	470	475	480	
Asn Leu Lys Phe Met	Lys Asn Arg Asp Val Tyr	Ser Ser Asp Tyr Phe		
	485	490	495	
Ser Phe Val Leu Ser	Leu Ala Ser Leu Asn Ala Thr	Lys Leu Lys His		
	500	505	510	
Pro Tyr Tyr Pro Cys Met	Ala Lys Val Ser Leu Gln	Leu Ala Ile Gln		
	515	520	525	
Phe Leu Phe Gln Thr Tyr	Leu Arg Thr Lys Lys	Lys Leu Arg Val Asp		
	530	535	540	
Thr Glu Glu Trp Ile Ala Thr	Ile Glu Ala Leu Leu Ser	Lys Ser Phe		
545	550	555	560	
Asp Ala Cys Gln Trp Leu Val	Glu Tyr Phe Ile Ser Ser	Glu Gly Arg		
565	570	575		
Glu Leu Ile Lys Ile Phe Leu	Leu Glu Cys Asn Val Arg	Glu Val Arg		
	580	585	590	
Val Ala Val Ala Thr Ile Leu	Glu Lys Thr Leu Asp Ser	Ala Leu Phe		
	595	600	605	
Tyr Gln Asp Lys Leu Lys Ser	Leu His Gln Leu Leu Glu	Val Leu Leu		
	610	615	620	
Ala Leu Leu Asp Lys Asp Val	Pro Glu Asn Cys Lys Asn	Cys Ala Gln		
625	630	635	640	
Tyr Phe Phe Leu Phe Asn Thr	Phe Val Gln Lys Gln Gly	Ile Arg Ala		
	645	650	655	
Gly Asp Leu Leu Arg His Ser	Ala Leu Arg His Met Ile	Ser Phe		
	660	665	670	
Leu Leu Gly Ala Ser Arg Gln	Asn Asn Gln Ile Arg Arg	Trp Ser Ser		
	675	680	685	
Ala Gln Ala Arg Glu Phe Gly	Asn Leu His Asn Thr Val	Ala Leu Leu		
	690	695	700	
Val Leu His Ser Asp Val Ser	Ser Gln Arg Asn Val Ala	Pro Gly Ile		
705	710	715	720	
Phe Lys Gln Arg Pro Pro Ile	Ser Ile Ala Pro Ser Ser	Pro Leu Leu		
	725	730	735	
Pro Leu His Glu Val Glu Ala	Leu Leu Phe Met Ser Glu	Gly Lys		
	740	745	750	
Pro Tyr Leu Leu Glu Val Met	Phe Ala Leu Arg Glu Leu	Thr Gly Ser		
	755	760	765	
Leu Leu Ala Leu Ile Glu Met	Val Val Tyr Cys Cys Phe	Cys Asn Glu		
	770	775	780	
His Phe Ser Phe Thr Met Leu	His Phe Ile Lys Asn Gln	Leu Glu Thr		
785	790	795	800	
Ala Pro Pro His Glu Leu Lys	Asn Thr Phe Gln Leu Leu	His Glu Ile		
	805	810	815	
Leu Val Ile Glu Asp Pro Ile	Gln Ala Glu Arg Val Lys	Phe Val Phe		
	820	825	830	
Glu Thr Glu Asn Gly Leu Leu	Ala Leu Met His His Ser	Asn His Val		
	835	840	845	
Asp Ser Ser Arg Cys Tyr Gln	Cys Val Lys Phe Leu Val	Thr Leu Ala		
	850	855	860	
Gln Lys Cys Pro Ala Ala Lys	Glu Tyr Phe Lys Glu Asn	Ser His His		
865	870	875	880	
Trp Ser Trp Ala Val Gln Trp	Leu Gln Lys Lys Met Ser	Glu His Tyr		

<400> 3140

Xaa	Ile	Leu	Cys	Leu	Gly	Leu	Thr	Val	Ala	Val	Asp	Ser	Tyr	Phe	Trp
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Arg	Gln	Leu	Thr	Trp	Pro	Glu	Gly	Lys	Val	Leu	Trp	Tyr	Asn	Thr	Val
			20					25					30		
Leu	Asn	Lys	Ser	Ser	Asn	Trp	Gly	Thr	Ser	Pro	Leu	Leu	Trp	Tyr	Phe
		35					40					45			
Tyr	Ser	Ala	Leu	Pro	Arg	Gly	Leu	Gly	Cys	Ser	Leu	Leu	Phe	Ile	Pro
	50					55					60				
Leu	Gly	Leu	Val	Asp	Arg	Arg	Thr	His	Ala	Pro	Thr	Val	Leu	Ala	Leu

65		70		75		80									
Gly	Phe	Met	Ala	Leu	Tyr	Ser	Leu	Leu	Pro	His	Lys	Glu	Leu	Arg	Phe
		85							90					95	
Ile	Ile	Tyr	Ala	Phe	Pro	Met	Leu	Asn	Ile	Thr	Ala	Ala	Arg	Gly	Cys
		100						105					110		
Ser	Tyr	Leu													
		115													

<210> 3141
 <211> 1815
 <212> DNA
 <213> Homo sapiens

<400> 3141
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 120
 gcatccgcgt caagaggcga agagagcgcg cgctccccac gtcctgcgct cctggctgcc
 180
 gggcattcgt ctcagccgtg actctcgcca ggccggggct ggcgcgccca cgtctgaaga
 240
 gcgatgcccc gggagatcat caccctgcag ctgggcccagt gcggcaacca gattgggttc
 300
 gagttctgga aacagctgtg cgccgagcat ggtatcagcc ccgagggcat cgtggaggag
 360
 ttcgccaccg agggcactga ccgcaaggac gtctttttct accaggcaga cgatgagcac
 420
 tacatcccc gggccgtgct gctggacttg gaacccggg tgatccactc catcctcaac
 480
 tccccctatg ccaagctcta caaccagag aacatctacc tgtcggaaca tggaggagga
 540
 gctggcaaca actgggccag cggattctcc cagggtgaga aaattcatga ggacattttt
 600
 gacatcatag accgggaggg agatggtagt gacagtctag agggctttgt gctgtgtcac
 660
 tccattgctg gggggacagg ctctggactg ggttcctacc tcttagaacg gctgaatgac
 720
 aggtatccta agaagctggt gcagacatac tcagtgtttc ccaaccagga cgagatgagc
 780
 gatgtggtgg tccagcctta caattcactc ctacactca agaggctgac gcagaatgca
 840
 gactgtgtgg tgggtgctga caacacagcc ctgaaccgga ttgccacaga ccgcctgcac
 900
 atccagaacc catccttctc ccagatcaac cagctggtgt ctaccatcat gtcagccagc
 960
 accaccaccc tgcgctaccc tggctacatg aacaatgacc tcatcggcct catcgccctg
 1020
 ctcatcccca ccccaaggct ccatttctc atgaccggct acaccccgct cactacagac
 1080
 cagtcagtgg ccagcgtgag gaagaccacg gtccctggatg tcatgaggcg gctgctgcag
 1140
 cccaagaacg tgatggtgtc cacaggccga gaccgcccaga ccaaccactg ctacatcgcc
 1200

atcctcaaca tcattccaggg agaggtggac cccacccagg tccacaagag cttgcagagg
 1260
 atccgggaac gcaagttggc caacttcac cctggtggcc ccgccagcat ccaggtggcc
 1320
 ctgtcgagga agtctcccta cctgccctcg gccaccggg tcagcgggct catgatggcc
 1380
 aaccacacca gcatctcctc gctcttcgag agaactgtc gccagtatga caagctgcgt
 1440
 aagcgggagg ccttcctgga gcagttccgc aaggaggaca tggtcaagga caactttgat
 1500
 gagatggaca catccagga gattgtgcag cagctcatcg atgagtacca tgcggccaca
 1560
 cggccagact acatctcctg gggcaccag gagcagttag tccccagga caggggacct
 1620
 catctgcctt actggttggc ccaagccctg cctgactgac caccctca gagcacagat
 1680
 caggggacct acgcatctct ttctcatata catggactct ctgttggcct gcaaacacat
 1740
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 1800
 aaaaaaaaaa aaaaa
 1815

<210> 3142

<211> 451

<212> PRT

<213> Homo sapiens

<400> 3142

Met	Pro	Arg	Glu	Ile	Ile	Thr	Leu	Gln	Leu	Gly	Gln	Cys	Gly	Asn	Gln
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Ile	Gly	Phe	Glu	Phe	Trp	Lys	Gln	Leu	Cys	Ala	Glu	His	Gly	Ile	Ser
			20				25						30		
Pro	Glu	Gly	Ile	Val	Glu	Glu	Phe	Ala	Thr	Glu	Gly	Thr	Asp	Arg	Lys
			35				40					45			
Asp	Val	Phe	Phe	Tyr	Gln	Ala	Asp	Asp	Glu	His	Tyr	Ile	Pro	Arg	Ala
			50			55					60				
Val	Leu	Leu	Asp	Leu	Glu	Pro	Arg	Val	Ile	His	Ser	Ile	Leu	Asn	Ser
					70					75				80	
Pro	Tyr	Ala	Lys	Leu	Tyr	Asn	Pro	Glu	Asn	Ile	Tyr	Leu	Ser	Glu	His
			85						90					95	
Gly	Gly	Gly	Ala	Gly	Asn	Asn	Trp	Ala	Ser	Gly	Phe	Ser	Gln	Gly	Glu
			100					105					110		
Lys	Ile	His	Glu	Asp	Ile	Phe	Asp	Ile	Ile	Asp	Arg	Glu	Ala	Asp	Gly
			115				120					125			
Ser	Asp	Ser	Leu	Glu	Gly	Phe	Val	Leu	Cys	His	Ser	Ile	Ala	Gly	Gly
			130			135					140				
Thr	Gly	Ser	Gly	Leu	Gly	Ser	Tyr	Leu	Leu	Glu	Arg	Leu	Asn	Asp	Arg
					150					155				160	
Tyr	Pro	Lys	Lys	Leu	Val	Gln	Thr	Tyr	Ser	Val	Phe	Pro	Asn	Gln	Asp
			165						170					175	
Glu	Met	Ser	Asp	Val	Val	Val	Gln	Pro	Tyr	Asn	Ser	Leu	Leu	Thr	Leu
			180					185					190		
Lys	Arg	Leu	Thr	Gln	Asn	Ala	Asp	Cys	Val	Val	Val	Leu	Asp	Asn	Thr

195	200	205
Ala Leu Asn Arg Ile Ala Thr Asp Arg Leu His Ile Gln Asn Pro Ser		
210	215	220
Phe Ser Gln Ile Asn Gln Leu Val Ser Thr Ile Met Ser Ala Ser Thr		
225	230	235
Thr Thr Leu Arg Tyr Pro Gly Tyr Met Asn Asn Asp Leu Ile Gly Leu		
245	250	255
Ile Ala Ser Leu Ile Pro Thr Pro Arg Leu His Phe Leu Met Thr Gly		
260	265	270
Tyr Thr Pro Leu Thr Thr Asp Gln Ser Val Ala Ser Val Arg Lys Thr		
275	280	285
Thr Val Leu Asp Val Met Arg Arg Leu Leu Gln Pro Lys Asn Val Met		
290	295	300
Val Ser Thr Gly Arg Asp Arg Gln Thr Asn His Cys Tyr Ile Ala Ile		
305	310	315
Leu Asn Ile Ile Gln Gly Glu Val Asp Pro Thr Gln Val His Lys Ser		
325	330	335
Leu Gln Arg Ile Arg Glu Arg Lys Leu Ala Asn Phe Ile Pro Trp Gly		
340	345	350
Pro Ala Ser Ile Gln Val Ala Leu Ser Arg Lys Ser Pro Tyr Leu Pro		
355	360	365
Ser Ala His Arg Val Ser Gly Leu Met Met Ala Asn His Thr Ser Ile		
370	375	380
Ser Ser Leu Phe Glu Arg Thr Cys Arg Gln Tyr Asp Lys Leu Arg Lys		
385	390	395
Arg Glu Ala Phe Leu Glu Gln Phe Arg Lys Glu Asp Met Phe Lys Asp		
405	410	415
Asn Phe Asp Glu Met Asp Thr Ser Arg Glu Ile Val Gln Gln Leu Ile		
420	425	430
Asp Glu Tyr His Ala Ala Thr Arg Pro Asp Tyr Ile Ser Trp Gly Thr		
435	440	445
Gln Glu Gln		
450		

<210> 3143

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3143

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ggagacagac cctctgcggt ggagtctggg agtgggtgtgg ttgctgcttg ggctgggctg
120
caggcctgag ctcttggtg gtgggaaggg gaggctgctg gtccacagtg tgggggtgct
180
tcacggttaa ccaagccatc ccccatgctg ggcgtgaggc actagcggaa ttgagagcct
240
cagaaaccca ggtgctgctg tgtgaggctg tcgcagccac gaagatgacc atgactgcaa
300
gggctgtgag gggccccctg agcgtccagc agcactaaca gataggaacc acgcgt
356

<210> 3144

<211> 81
 <212> PRT
 <213> Homo sapiens

<400> 3144
 Met Val Ile Phe Val Ala Ala Thr Ala Ser His Ser Ser Thr Trp Val
 1 5 10 15
 Ser Glu Ala Leu Asn Ser Ala Ser Ala Ser Arg Pro Ala Trp Gly Met
 20 25 30
 Ala Trp Leu Thr Val Lys His Pro His Thr Val Asp Gln Gln Pro Pro
 35 40 45
 Leu Pro Thr Ser Gln Glu Leu Arg Pro Ala Ala Gln Pro Lys Gln Gln
 50 55 60
 Pro His His Ser Gln Thr Pro Pro Gln Arg Val Cys Leu Arg Ala Pro
 65 70 75 80
 Ser

<210> 3145
 <211> 436
 <212> DNA
 <213> Homo sapiens

<400> 3145
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 atccgaagag cccgattacc agctgctcgg gagggccaag caggaccggg ggaggccaaa
 120
 ctccgaggag cccgctccac ctgccctcag gaggggtgttt aaaacggagg ttgccaccgt
 180
 ttacgcacct gccctcagt ccagggcccc cgagcctggt ttgtcagact ctgcagccgc
 240
 cagccagtgg tcaactctgcc cggcagatga cgagcggagg agagccacac atctcaacgg
 300
 gctccaggcg ccctcggaaa ctgccctggc ctgctcacc ccatgacagt gcctgtcccc
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 cgaatgtagt gagcagccgt cgcagactca caccgcgcg gggctgggga accagctaag
 420
 tcccacagcg gttgct
 436

<210> 3146
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 3146
 Met Glu Lys Leu Arg Ser Lys Thr Pro Leu Gly Leu His Pro Lys Ser
 1 5 10 15
 Pro Ile Thr Ser Cys Ser Gly Gly Pro Ser Arg Thr Gly Gly Gly Gln
 20 25 30
 Thr Pro Arg Ser Pro Leu His Leu Pro Ser Gly Gly Cys Leu Lys Arg
 35 40 45
 Arg Leu Pro Pro Phe Thr His Leu Pro Ser Val Pro Gly Pro Pro Ser

50		55		60
Leu Val Cys Gln Thr	Leu Gln Pro Pro Ala Ser	Gly His Ser Ala Arg		
65	70	75	80	
Gln Met Thr Ser Gly	Gly Glu Pro His Ile Ser	Thr Gly Ser Arg Arg		
	85	90	95	
Pro Arg Lys Leu Pro	Trp Pro Ala His Pro Arg	Cys Ser Ala Cys Pro		
	100	105	110	
Pro Asn Val Val Ser	Ser Arg Arg Arg Leu Thr	Pro Arg Arg Gly Trp		
	115	120	125	
Gly Thr Ser				
130				

<210> 3147

<211> 3106

<212> DNA

<213> Homo sapiens

<400> 3147

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 120
 gccgagcgcg aggtgtcggg gccaccttc agctgggagg agattcagaa gcataacctg
 180
 cgcaccgaca ggtggctggg cattgaccgc aagggtttaca acatcaccaa atgggtccatc
 240
 cagcaccggg ggggccagcg ggtcatcggg cactacgctg gagaagatgc aacggatgcc
 300
 ttccgcgcct tccacctga cctggaattc gtgggcaagt tcttgaaacc cctgctgatt
 360
 ggtgaactgg ccccgaggga gccagccag gaccacggca agaactcaaa gatcactgag
 420
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 540
 ttttactttg gcaatggctg gatttctacc ctcatcacgg cctttgtcct tgctacctt
 600
 caggcccaag ctggatggct gcaacatgat tatggccacc tgtctgtcta cagaaaaccc
 660
 aagtggaacc accttgcca caaattcgtc attggccact taaaggggtc ctctgccaac
 720
 tgggtggaatc atcgccactt ccagcaccac gccagccta acatcttcca caaggatccc
 780
 gatgtgaaca tgctgcacgt gtttggtctg ggcgaatggc agcccatcga gtacggcaag
 840
 aagaagctga aatacctgcc ctacaatcac cagcacgaat acttcttctt gattggggccg
 900
 ccgctgctca tccccatgta tttccagtac cagatcatca tgaccatgat cgtccataag
 960
 aactgggtgg acctggcctg ggccgtcagc tactacatcc gggttcttcat cacctacatc
 1020
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 1080

cactggtttg tgtgggtcac acagatgaat cacatcgtca tggagattga ccaggaggcc
1140
taccgtgact ggttcagtag ccagctgaca gccacctgca acgtggagca gtccttcttc
1200
aacgactggt tcagtggaca ccttaacttc cagattgagc accacctctt ccccaccatg
1260
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1320
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1380
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1440
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1560
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1680
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1740
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1800
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1860
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1920
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1980
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2040
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2100
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2220
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2280
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2340
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2400
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2460
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2520
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2580
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2640
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2700

tgagaagagg aggaggtggg ggctggaggt gctggtagct gaggggacgg gcaagtgaga
 2760
 ggggagggag ggaagtcctg ggaggatcct gagctgctgt tgcagtctaa cccactaatc
 2820
 agttcttaga ttcaggggaa gggcaggcac caacaactca gaatgggggc tttcggggag
 2880
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 2940
 gccatggcaa tggcatgccc cccagctact gtatgcccc gacccccgca gaggcagaat
 3000
 gaacccatag ggagctgac gtaatgttta tcatgttact tccccacccc tacatttttt
 3060
 gaaataaaat aaggaatttt attctcaaaa aaaaaaaaaa aaaaaa
 3106

<210> 3148
 <211> 444
 <212> PRT
 <213> Homo sapiens

<400> 3148
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 Ser Val Pro Thr Phe Ser Trp Glu Glu Ile Gln Lys His Asn Leu Arg
 20 25 30
 Thr Asp Arg Trp Leu Val Ile Asp Arg Lys Val Tyr Asn Ile Thr Lys
 35 40 45
 Trp Ser Ile Gln His Pro Gly Gly Gln Arg Val Ile Gly His Tyr Ala
 50 55 60
 Gly Glu Asp Ala Thr Asp Ala Phe Arg Ala Phe His Pro Asp Leu Glu
 65 70 75 80
 Phe Val Gly Lys Phe Leu Lys Pro Leu Leu Ile Gly Glu Leu Ala Pro
 85 90 95
 Glu Glu Pro Ser Gln Asp His Gly Lys Asn Ser Lys Ile Thr Glu Asp
 100 105 110
 Phe Arg Ala Leu Arg Lys Thr Ala Glu Asp Met Asn Leu Phe Lys Thr
 115 120 125
 Asn His Val Phe Phe Leu Leu Leu Leu Ala His Ile Ile Ala Leu Glu
 130 135 140
 Ser Ile Ala Trp Phe Thr Val Phe Tyr Phe Gly Asn Gly Trp Ile Pro
 145 150 155 160
 Thr Leu Ile Thr Ala Phe Val Leu Ala Thr Ser Gln Ala Gln Ala Gly
 165 170 175
 Trp Leu Gln His Asp Tyr Gly His Leu Ser Val Tyr Arg Lys Pro Lys
 180 185 190
 Trp Asn His Leu Val His Lys Phe Val Ile Gly His Leu Lys Gly Ala
 195 200 205
 Ser Ala Asn Trp Trp Asn His Arg His Phe Gln His His Ala Lys Pro
 210 215 220
 Asn Ile Phe His Lys Asp Pro Asp Val Asn Met Leu His Val Phe Val
 225 230 235 240
 Leu Gly Glu Trp Gln Pro Ile Glu Tyr Gly Lys Lys Lys Leu Lys Tyr
 245 250 255
 Leu Pro Tyr Asn His Gln His Glu Tyr Phe Phe Leu Ile Gly Pro Pro

	260		265		270										
Leu	Leu	Ile	Pro	Met	Tyr	Phe	Gln	Tyr	Gln	Ile	Ile	Met	Thr	Met	Ile
	275						280					285			
Val	His	Lys	Asn	Trp	Val	Asp	Leu	Ala	Trp	Ala	Val	Ser	Tyr	Tyr	Ile
	290					295					300				
Arg	Phe	Phe	Ile	Thr	Tyr	Ile	Pro	Phe	Tyr	Gly	Ile	Leu	Gly	Ala	Leu
305					310					315					320
Leu	Phe	Leu	Asn	Phe	Ile	Arg	Phe	Leu	Glu	Ser	His	Trp	Phe	Val	Trp
			325						330					335	
Val	Thr	Gln	Met	Asn	His	Ile	Val	Met	Glu	Ile	Asp	Gln	Glu	Ala	Tyr
		340						345					350		
Arg	Asp	Trp	Phe	Ser	Ser	Gln	Leu	Thr	Ala	Thr	Cys	Asn	Val	Glu	Gln
	355					360						365			
Ser	Phe	Phe	Asn	Asp	Trp	Phe	Ser	Gly	His	Leu	Asn	Phe	Gln	Ile	Glu
	370					375					380				
His	His	Leu	Phe	Pro	Thr	Met	Pro	Arg	His	Asn	Leu	His	Lys	Ile	Ala
385					390					395					400
Pro	Leu	Val	Lys	Ser	Leu	Cys	Ala	Lys	His	Gly	Ile	Glu	Tyr	Gln	Glu
			405					410						415	
Lys	Pro	Leu	Leu	Arg	Ala	Leu	Leu	Asp	Ile	Ile	Arg	Ser	Leu	Lys	Lys
		420						425					430		
Ser	Gly	Lys	Leu	Trp	Leu	Asp	Ala	Tyr	Leu	His	Lys				
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<210> 3149

<211> 1006

<212> DNA

<213> Homo sapiens

<400> 3149

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720

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<210> 3150
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 3150
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 Val Arg Glu Leu Glu Gly Lys Thr Gly Phe Ser Ser Asp Gln Ile Glu
 50 55 60
 Gln Leu His Arg Arg Phe Lys Gln Leu Ser Gly Asp Gln Pro Thr Ile
 65 70 75 80
 Arg Lys Glu Asn Phe Asn Asn Val Pro Asp Leu Glu Leu Asn Pro Ile
 85 90 95
 Arg Ser Lys Ile Val Arg Ala Phe Phe Asp Asn Arg Asn Leu Arg Lys
 100 105 110
 Gly Pro Ser Gly Leu Ala Asp Glu Ile Asn Phe Glu Asp Phe Leu Thr
 115 120 125
 Ile Met Ser Tyr Phe Arg Pro Ile Asp Thr Thr Met Asp Glu Glu Gln
 130 135 140
 Val Glu Leu Ser Arg Lys Glu Lys Leu Arg Phe Leu Phe His Met Tyr
 145 150 155 160
 Asp Ser Asp Ser Asp Gly Arg Ile Thr Leu Glu Glu Tyr Arg Asn Val
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 Pro Leu Ala Pro Ser Pro Thr Gly Pro
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<210> 3151
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 <212> DNA
 <213> Homo sapiens

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 2079

<210> 3152
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 3152
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 35 40 45
 Ile Phe Ser Phe Ile Ser Lys Asp Val Val Ser Lys Leu Arg Ile Met
 50 55 60
 Glu Arg Leu Arg Gly Gly Pro Gln Ser Glu His Tyr Arg Ser Leu Gln
 65 70 75 80
 Ala Met Val Ala His Glu Leu Ser Asn Arg Leu Val Asp Leu Glu Gly
 85 90 95
 Arg Ser His His Pro Glu Ser Gly Cys Arg Thr Val Leu Arg Leu His
 100 105 110
 Arg Ala Leu His Trp Leu Gln Leu Phe Leu Glu Gly Leu Arg Thr Ser
 115 120 125
 Pro Glu Asp Ala Arg Thr Ser Ala Leu Cys Ala Asp Ser Tyr Asn Ala
 130 135 140
 Ser Leu Ala Ala Tyr His Pro Trp Val Val Arg Arg Ala Val Thr Val
 145 150 155 160
 Ala Phe Cys Thr Leu Pro Thr Arg Glu Val Phe Leu Glu Ala Met Asn
 165 170 175
 Val Gly Pro Pro Glu Gln Ala Val Gln Met Leu Gly Glu Ala Leu Pro
 180 185 190
 Phe Ile Gln Arg Val Tyr Asn Val Ser Gln Lys Leu Tyr Ala Glu His
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 Ser Leu Leu Asp Leu Pro
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<210> 3153
 <211> 1498
 <212> DNA
 <213> Homo sapiens

<400> 3153

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720
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<210> 3154

<211> 65

<212> PRT

<213> Homo sapiens

<400> 3154

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          20           25           30
Ser Gly His Arg Trp Gly Ile Thr Leu Pro Thr Arg Asp Ser Arg His
          35           40           45
Gly Leu Leu Gly Leu Gln Ala Pro Trp Gly Ser Arg Gly Lys Pro Gln
 50           55           60
Gly
65

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<210> 3155

<211> 551

<212> DNA

<213> Homo sapiens

<400> 3155

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240
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420
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<210> 3156

<211> 178

<212> PRT

<213> Homo sapiens

<400> 3156

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          20           25           30
Thr Ala Ser Thr Asn Cys Asp Ser Ser Glu Gly Leu Glu Lys Asp
          35           40           45
Thr Ala Thr Gln Arg Ser Asp Gln Thr Cys Leu Glu Pro Ser Cys Ser

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Cys Ser Ser Glu Asn Gln Glu Cys Gln Thr Ala Ala Ser Pro Gly Glu				
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Ile Leu Glu Ile Leu Lys Lys Gly Lys Ala Phe Val Leu Asp Ile Asp				
	85		90	95
Leu Asp Phe Phe Ser Val Lys Asn Pro Phe Lys Lys Met Phe Thr Gln				
	100		105	110
Glu Glu Tyr Lys Ile Leu Gln Glu Leu Tyr Gln Phe Lys Lys Pro Gly				
	115		120	125
Thr Asn Leu Thr Glu Glu Asp Leu Val Asp Ile Val Asp Thr Arg Ile				
	130		135	140
His Gln Leu Glu Asp Leu Glu Ala Thr Phe Ala Asp Leu Cys Asp Gly				
145		150	155	160
Asp Asp Glu Glu Thr Val Gln Gly Trp Ala Ser Asn Pro Gly Met Glu				
	165		170	175
Ser Leu				

<210> 3157

<211> 903

<212> DNA

<213> Homo sapiens

<400> 3157

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<210> 3158
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3158
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20 25 30
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35 40 45
Met Gln Glu Ser Pro Leu Gly Leu Gln Val Lys Glu Glu Ser Glu Val
50 55 60
Thr Glu Asp Ser Asp Phe Leu Glu Ser Gly Pro Leu Ala Ala Thr Gln
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Glu Ser Val Pro Thr Leu Leu Pro Glu Glu Ala Gln
85 90

<210> 3159
<211> 2408
<212> DNA
<213> Homo sapiens

<400> 3159
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2408

<210> 3160
<211> 431
<212> PRT
<213> Homo sapiens

<400> 3160
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35 40 45
Ala Lys Gln Arg Gly Lys Arg Ala Ile Thr Asp Asn Asp Met Gln Ser
50 55 60
Ile Leu Asp Leu His Asn Lys Leu Arg Ser Gln Val Tyr Pro Thr Ala
65 70 75 80
Ser Asn Met Glu Tyr Met Thr Trp Asp Val Glu Leu Glu Arg Ser Ala
85 90 95
Glu Ser Trp Ala Glu Ser Cys Leu Trp Glu His Gly Pro Ala Ser Leu
100 105 110
Leu Pro Ser Ile Gly Gln Asn Leu Gly Ala His Trp Gly Arg Tyr Arg
115 120 125
Pro Pro Thr Phe His Val Gln Ser Trp Tyr Asp Glu Val Lys Asp Phe
130 135 140
Ser Tyr Pro Tyr Glu His Glu Cys Asn Pro Tyr Cys Pro Phe Arg Cys
145 150 155 160
Ser Gly Pro Val Cys Thr His Tyr Thr Gln Val Val Trp Ala Thr Ser
165 170 175
Asn Arg Ile Gly Cys Ala Ile Asn Leu Cys His Asn Met Asn Ile Trp
180 185 190
Gly Gln Ile Trp Pro Lys Ala Val Tyr Leu Val Cys Asn Tyr Ser Pro
195 200 205
Lys Gly Asn Trp Trp Gly His Ala Pro Tyr Lys His Gly Arg Pro Cys
210 215 220
Ser Ala Cys Pro Pro Ser Phe Gly Gly Gly Cys Arg Glu Asn Leu Cys
225 230 235 240
Tyr Lys Glu Gly Ser Asp Arg Tyr Tyr Pro Pro Arg Glu Glu Glu Thr
245 250 255
Asn Glu Ile Glu Arg Gln Gln Ser Gln Val His Asp Thr His Val Arg
260 265 270
Thr Arg Ser Asp Asp Ser Ser Arg Asn Glu Val Ile Ser Ala Gln Gln
275 280 285
Met Ser Gln Ile Val Ser Cys Glu Val Arg Leu Arg Asp Gln Cys Lys
290 295 300
Gly Thr Thr Cys Asn Arg Tyr Glu Cys Pro Ala Gly Cys Leu Asp Ser
305 310 315 320
Lys Ala Lys Val Ile Gly Ser Val His Tyr Glu Met Gln Ser Ser Ile
325 330 335
Cys Arg Ala Ala Ile His Tyr Gly Ile Ile Asp Asn Asp Gly Gly Trp
340 345 350
Val Asp Ile Thr Arg Gln Gly Arg Lys His Tyr Phe Ile Lys Ser Asn

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	370		375		380										
Thr	Val	Ser	Lys	Val	Thr	Val	Gln	Ala	Val	Thr	Cys	Glu	Thr	Thr	Val
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Asp	Ser	Ser	Val	His	Phe	Ile	Ser	Leu	Leu	His	Ile	Ala	Gln	Glu	Tyr
			405				410						415		
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<210> 3161

<211> 1197

<212> DNA

<213> Homo sapiens

<400> 3161

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<211> 386

<212> PRT

<213> Homo sapiens

<400> 3162

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Asn	Arg	Gln	Lys	Tyr	Arg	His	Val	Asp	Asn	Ile	Met	Phe	Glu	Asn	His
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Val	Asp	Glu	Ile	Ala	Ala	Lys	Leu	Gly	Leu	Arg	Lys	Val	Gly	Trp	Ile
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Ser	Arg	Asn	Lys	Asp	Thr	Tyr	Phe	Leu	Ser	Ser	Glu	Glu	Cys	Ile	Thr
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Ala	Gly	Asp	Phe	Gln	Asn	Lys	His	Pro	Asn	Met	Cys	Arg	Leu	Ser	Pro
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Asp	Gly	His	Phe	Gly	Ser	Lys	Phe	Val	Thr	Ala	Val	Ala	Thr	Gly	Gly
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Pro	Asp	Asn	Gln	Val	His	Phe	Glu	Gly	Tyr	Gln	Val	Ser	Asn	Gln	Cys

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 <213> Homo sapiens

<400> 3164

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 Ser Ser Ala Ala Xaa Ala Ser Ala Ser Thr Gly Pro Trp His Ser Gly
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 Cys Gly Ser Ser Cys Gly Ser Cys Cys Cys Trp Gly Ser Pro Ser Ala
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<210> 3165

<211> 2413

<212> DNA

<213> Homo sapiens

<400> 3165

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<210> 3166

<211> 717

<212> PRT

<213> Homo sapiens

<400> 3166

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Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp Leu Ser Arg
      35           40           45
Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His Lys
      50           55           60
Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg Ser
      65           70           75           80
Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile Arg
      85           90           95
Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu Arg
      100          105          110
Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser Glu
      115          120          125
Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln Glu
      130          135          140
Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr His
      145          150          155          160
Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe Val
      165          170          175
Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn Ser
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Leu Arg Glu Thr Trp Glu Leu Glu Phe Arg Glu Gly Ile Glu Glu
      195          200          205
Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr Glu
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Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp Val
      225          230          235          240
Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His Cys
      245          250          255
Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu Leu
      260          265          270
Leu Val Ser Tyr Glu Glu Glu Gln Phe Thr Val Leu Glu Lys Phe Arg
      275          280          285
Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg Val
      290          295          300
Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg Glu
      305          310          315          320
Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr Phe
      325          330          335
Glu Gln Leu Ala Ala Leu Gln Ile Glu Tyr Glu Glu Asn Val Asp Leu
      340          345          350
Asn Asp Val Leu Val Pro Lys Pro Phe Ser Gln Phe Trp Gln Pro Leu
      355          360          365
Leu Arg Gly Leu His Ser Gln Asn Phe Thr Gln Ala Leu Leu Glu Arg
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Met Leu Ser Glu Leu Pro Ala Leu Gly Ile Ser Gly Ile Arg Pro Thr
      385          390          395          400
Tyr Ile Leu Arg Trp Thr Val Glu Leu Ile Val Ala Asn Thr Lys Thr
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Gly Arg Asn Ala Arg Arg Phe Ser Ala Gly Gln Trp Glu Ala Arg Arg

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 Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser Ser
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 Gln Thr Glu Asp Pro Ala Glu Leu Met Leu Glu Asn Tyr Asp Thr Met
 645 650 655
 Tyr Leu Leu Asp Gln Pro Val Leu Glu Gln Arg Leu Glu Pro Ser Thr
 660 665 670
 Cys Lys Thr Asp Thr Leu Gly Leu Ser Cys Gly Val Gly Ser Gly Asn
 675 680 685
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<210> 3167

<211> 2730

<212> DNA

<213> Homo sapiens

<400> 3167

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 <211> 312
 <212> PRT
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<400> 3168
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 Ser Tyr Ala Glu Glu Leu Ala Lys His Gly Met Lys Val Val Leu Ile
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 Ser Arg Ser Lys Asp Lys Leu Asp Gln Val Ser Ser Glu Ile Lys Glu
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 Asp Ile Tyr Asp Lys Ile Lys Thr Gly Leu Ala Gly Leu Glu Ile Gly
 115 120 125
 Ile Leu Val Asn Asn Val Gly Met Ser Tyr Glu Tyr Pro Glu Tyr Phe
 130 135 140
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 180 185 190
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<212> DNA

<213> Homo sapiens

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 Pro Thr Lys Ile Pro Arg Gly Glu Leu Asp Met Pro Val Glu Asn Gly
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Ser Pro Gln Thr Leu Leu Glu Leu Lys Arg Gln Arg Ala Ala Ala Lys		
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Arg Thr Gly Glu Ser Ser Ser Glu Gly Lys Ala Xaa Leu Ile Gly Gly		
355	360	365
Arg Thr Ser Pro Tyr Ser Ser Asn Gly Thr Ser Val Tyr Tyr Thr Val		
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<212> DNA

<213> Homo sapiens

<400> 3171

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<211> 228

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<213> Homo sapiens

<400> 3172

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Ser Leu Ala Met Asp Val Ser Ser Val His His Asn Ser Thr Leu Leu
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Arg Tyr Ser Val Ser Leu Leu Gly Tyr Gly Phe Tyr Gly Asp Ile Ile
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Lys Asp Ser Glu Lys Lys Arg Trp Leu Gly Leu Ala Arg Tyr Asp Phe
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Ser Gly Leu Lys Thr Phe Leu Ser His His Cys Tyr Glu Gly Thr Val
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Ser Phe Leu Pro Ala Gln His Thr Val Gly Ser Pro Arg Asp Arg Lys
          115          120          125
Pro Cys Arg Ala Gly Cys Phe Val Cys Arg Gln Ser Lys Gln Gln Leu
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Glu Glu Glu Gln Lys Lys Ala Leu Tyr Gly Leu Glu Ala Ala Glu Asp
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Val Glu Glu Trp Gln Val Val Cys Gly Lys Phe Leu Ala Ile Asn Ala
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Thr Asn Met Ser Cys Ala Cys Arg Arg Ser Pro Arg Gly Leu Ser Pro
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Ala Ala His Leu Gly Asp Gly Ser Ser Asp Leu Ile Leu Ile Arg Lys
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<211> 573

<212> DNA

<213> Homo sapiens

<400> 3173

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 <211> 152
 <212> PRT
 <213> Homo sapiens

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 His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys His Thr Tyr Leu
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 Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val Arg Ser Ala Asn
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 <211> 948
 <212> DNA
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<210> 3176

<211> 92

<212> PRT

<213> Homo sapiens

<400> 3176

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<210> 3177

<211> 1857

<212> DNA

<213> Homo sapiens

<400> 3177

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1680
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1740
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1857

<210> 3178

<211> 273
 <212> PRT
 <213> Homo sapiens

<400> 3178
 Xaa Ile Gln Asp Ile Glu Gly Ala Ser Ala Lys Asp Leu Cys Ser Ala
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 20 25 30
 Glu Gln Val Gln Phe Gln Pro Asn Thr Val Asn Thr Leu Ala Cys Pro
 35 40 45
 Leu Leu Ser Asn Leu Ala Thr Arg Leu Trp Leu Arg Asn Gly Ala Pro
 50 55 60
 Val Asn Ala Ser Ala Ser Cys His Val Leu Pro Thr Gly Asp Leu Leu
 65 70 75 80
 Leu Val Gly Thr Gln Gln Leu Gly Glu Phe Gln Cys Trp Ser Leu Glu
 85 90 95
 Glu Gly Phe Gln Gln Leu Val Ala Ser Tyr Cys Pro Glu Val Val Glu
 100 105 110
 Asp Gly Val Ala Asp Gln Thr Asp Glu Gly Gly Ser Val Pro Val Ile
 115 120 125
 Ile Ser Thr Ser Arg Val Ser Ala Pro Ala Gly Gly Lys Ala Ser Trp
 130 135 140
 Gly Ala Asp Arg Ser Tyr Trp Lys Glu Phe Leu Val Met Cys Thr Leu
 145 150 155 160
 Phe Val Leu Ala Val Leu Leu Pro Val Leu Phe Leu Leu Tyr Arg His
 165 170 175
 Arg Asn Ser Met Lys Val Phe Leu Lys Gln Gly Glu Cys Ala Ser Val
 180 185 190
 His Pro Lys Thr Cys Pro Val Val Leu Pro Pro Glu Thr Arg Pro Leu
 195 200 205
 Asn Gly Leu Gly Pro Pro Ser Thr Pro Leu Asp His Arg Gly Tyr Gln
 210 215 220
 Ser Leu Ser Asp Ser Pro Pro Gly Ala Arg Val Phe Thr Glu Ser Glu
 225 230 235 240
 Lys Arg Pro Leu Ser Ile Gln Asp Ser Phe Val Glu Val Ser Pro Val
 245 250 255
 Cys Pro Arg Pro Arg Val Arg Leu Gly Ser Glu Ile Arg Asp Ser Val
 260 265 270
 Val

<210> 3179
 <211> 3447
 <212> DNA
 <213> Homo sapiens

<400> 3179
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 taaatcatga tacaaccacc acaggcaatt accatcaaat acattcccat gatttacaaa
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tgtatcgctt atacagagga agttgcaaaa tcaactgccag tacagacaca tccagtctaa
240
ttaactatcg tctattcata caacagcaac aactgcagct cctgagacca cagaaggaca
300
cagtgcagcag ctggtgactg agccagggtg gcctccgatc aataactgat cagagtaatg
360
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420
aatgcaccct ccacatttgg attttctcta gaagaatctg tggccaaatc tcttatccaa
480
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540
tggttctgtg tgcacactgg gctctgggga gggaggacac ccctgtgtgt tgcgtgctgc
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ttccgtgctg tctactgtat ccttcagtgt tctccaaatg gtacacgccc catgggatta
660
cagaacacag ctacagaatt aggatctcat ggtaacaatg aggaattagg ttactgtaga
720
actaaaatat gtttaatgaa attaaaatgc aatggaaaaa aaatcaggca acagaacatt
780
ctgatgaatt tacaggactg attatatccc acggcactga atgacaaaca gttcttctcc
840
atacagtcgc aattagaggc atagaagtca tactgaatgc tgaatagaag aacactgaga
900
agagcagggt ataaatgaag gttttcacat aaaacagaaa aatagacaaa atcatcggtg
960
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1020
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1080
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1140
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1200
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1260
cctaagtgt caccatttcc tcatgtgacc ctgacattcc ggggaactgg gaaacctgtt
1320
ccttaaaggc aacaacagtc ctttctttcc tctcacaaca aaggagcatg ttctccgtga
1380
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1440
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1500
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1560
aagagcacag gaggtgga ggaggacaaa cagccccctt tatagggtca tgggggggct
1620
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1680
actgtgtgtg gggcaggccg ccgtggtcct gagagacagg gcccgggcct tccactgtc
1740
gtttgcacac ctcttcggcc tatcccaagg accttcctag catataaaaa caggggctct
1800

cctgatttgt aaacagaaca acaaataaaa ataaaaacaa aacaaaaaat tcttccatgg
1860
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1920
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1980
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2040
cacgtgcaaa tgttattatt attatttttt gcctttggca tcaaagggca agcctgttca
2100
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2160
aaagcaatca tgtgaaaatt atttttatct ttaaaatttt tgaaagtgtt ttgattttta
2220
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2280
aatgttttct ttgaaaatat tgaagagtat aagagattta agacaataaa ggctgtaatc
2340
ttaccataaa ggaagaaaaa catctatgtg tgtcaatatt gttttgagat aaagtcacaa
2400
tgattgatat caatgcttcc accattttat ttcaacttaa accagtgtca ctcacatgaa
2460
gcttatttta taatacatat tatccagtga tttcatcttt tctgcacagt ttaagtacat
2520
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2580
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2640
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2700
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2760
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2820
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2880
cagatggtag agatgttaac agttgcctga aacttcgatg tgctttcacg cccacaggaa
2940
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3000
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3120
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3180
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3240
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3300
tctgaatggc actcaggga cagcgctttg atgaaccagc agccacaggt tctccactga
3360
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3420

gttatacttt tttttccact tttgctt
3447

<210> 3180
<211> 127
<212> PRT
<213> Homo sapiens

<400> 3180
Met Ser Phe Thr Asn Lys Ser Arg Gln Val Ser Gln Pro Glu Ile Ser
1 5 10 15
Thr Gln Thr Asp Gly Arg Asp Val Asn Ser Cys Leu Lys Leu Arg Cys
20 25 30
Ala Phe Thr Pro Thr Gly Lys Val Lys Leu Thr Phe Val Phe Leu Phe
35 40 45
Asn Asn Phe Met Ile Asn Lys Glu Leu Gln Leu Glu Thr Lys Ala Asn
50 55 60
Ser Arg Asn Ser Leu Thr Pro Ser Cys Pro Met Val Phe Met Ile Ala
65 70 75 80
Cys Tyr Gln Asn Glu Ala Leu Cys Ser Thr Leu Tyr Ser Lys Ala Phe
85 90 95
Tyr Ala Pro Thr Arg Pro Ser Gly Ile Pro Glu Ser Ala Leu His Thr
100 105 110
Gly Arg Lys Thr Ala Ser Ser Tyr Arg Leu Cys Glu Asn Thr Gln
115 120 125

<210> 3181
<211> 287
<212> DNA
<213> Homo sapiens

<400> 3181
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ggacgcgcgc cgcaacaagt gccgcattcg cctggggcggg cacatgaagc aggggggcct
120
cctcaaggac ggctgggctt ctccctgcac tcgcagctcg ccaagttcct gttggaccgg
180
tacattctt caggctgtgt cctctgtgca ggtcctgagc tttgcctcc aaaaggtctg
240
cagtatctgg tgctcttgtc tcatgccccca caccggagat gcaccct
287

<210> 3182
<211> 95
<212> PRT
<213> Homo sapiens

<400> 3182
Met Ala Ser Ser Pro Ala Val Asp Val Ser Cys Arg Arg Arg Gly Glu
1 5 10 15
Arg Arg Gln Leu Asp Ala Arg Arg Asn Lys Cys Arg Ile Arg Leu Gly
20 25 30
Gly His Met Lys Gln Gly Gly Leu Leu Lys Asp Gly Trp Ala Ser Pro

2399

tgtaaggac aaagccaggt ctaatggtac tgggtagggg gcaactgccaa gacaataagc
 1260
 taggctactg ggtccagcta ctactttggt gggattcagg tgagtctcca tgcacttcac
 1320
 atgttaccca gtgttcttgt tacttccaag gagaaccaag aatggctctg tcacactcga
 1380
 agccaggttt gatcaataaa cacaatggta ttccaaaaaa aaaaaaaaaa aaaaaaaaaa
 1440
 aaaaaaaaaa aaaaaaa
 1457

<210> 3184
 <211> 140
 <212> PRT
 <213> Homo sapiens

<400> 3184
 Xaa Tyr Val Ser Cys Ile Val Met Thr Pro Ser Leu Cys Val Ala Cys
 1 5 10 15
 Pro Gln Leu Ile Thr His Ile Pro Arg Asn Ala Gly Tyr Ser Phe Val
 20 25 30
 Gln Thr Gln Leu Leu Val Pro Lys Lys Val Leu Pro Glu Ser Cys Arg
 35 40 45
 Leu Ser Trp Asn Leu Leu Gly Asp Glu Ala Ala Ala Glu Leu Ala Gln
 50 55 60
 Val Leu Pro Gln Met Gly Arg Leu Lys Arg Val Asp Leu Glu Lys Asn
 65 70 75 80
 Gln Ile Thr Ala Leu Gly Ala Trp Leu Leu Ala Glu Gly Leu Ala Gln
 85 90 95
 Gly Ser Ser Ile Gln Val Ile Arg Leu Trp Asn Asn Pro Ile Pro Cys
 100 105 110
 Asp Met Ala Gln His Leu Lys Ser Gln Glu Pro Arg Leu Asp Phe Ala
 115 120 125
 Phe Phe Asp Asn Gln Pro Gln Ala Pro Trp Gly Thr
 130 135 140

<210> 3185
 <211> 1433
 <212> DNA
 <213> Homo sapiens

<400> 3185
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 ctctggctcc caccacacaa gcctcagagc aggaacaag cttggctgag atgcctcagg
 120
 cctggttaacc tgaggaggtg tagagcacc agaaaggaagg gtaaaagcag ggggcaaagc
 180
 ggtggccctc cttttctggg ggtcacttct gggctggggc cagctgaaac ctgtgtccaa
 240
 gtagctttca gggctggcca caccctaagc cttgcaaaag ggcctcctgc aagggtggc
 300
 ccatggggtc ccaccttcc cagccagtga ggtagcatg gtaggagtc cacatgtgtg
 360

caagtgcttg tgtggaggct catgtatgca tgtgtgtata tgcaaagctg cacatgacaa
 420
 tgtgcatgcc agtccagagt tagatgtacc tatgcagttg ccctcaagcg aagggtcata
 480
 tttggaaaca aggatggctc taaacatgta agcgtgcatg tgggcatgta tgtatctggg
 540
 gcctaaggag gtggggaagt ggggtgtggg gtaagggtg gccttcaggg catttgcaga
 600
 aggaggagtg ggtgggaggg aaaggctggg cagagcaggg gaaggagtga aagccaggca
 660
 ggaaagtgga agaacaggag aagctcatgt aatggattac cctccacagg attatgttcc
 720
 ttgattcctg agagtttttt ctcttgattt taccctctca gtctatcact gcaagagaaa
 780
 gaggtagaaa agacaaacag accacaaaag acaagaaccc agacatatag acagacgcac
 840
 ctgttgcattg tgcattgagc agagcctggg agagaagaga gagcgtgcaa gagagagctc
 900
 agagcaggca ggcagccac cccctgcagc agtgctgggc ttcactggag cccctgcagg
 960
 aagtcagca gccctgtatg cactcctct ggtttgtcca ggtaacaggg gtgccccgcc
 1020
 cccttcattg tcagcaccgc gtggttgggc agctgcttca ggtgctcaaa gctggtctga
 1080
 cccatggggc cctgggtctc atatacaatc agagctggag tctgagagga aggatagggg
 1140
 ggtggggcag agtcaacagg acctgccata gcacccccag ccctccccac ttcagtctct
 1200
 tcctgggacc accccatatt agggagagag acaagctggc ccagtgggtg ggggcacaga
 1260
 ttggtgtctg cccagaaca cagtttagca cagggttgg cacagtagtc tgctgagtaa
 1320
 accaaaaggg tggagtggg tggtcagctc ctcccagaag acacccttg attatccagc
 1380
 cccagatga ggaaagccca ggatgcaccc ttccttgctc ctggcagggc acc
 1433

<210> 3186

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3186

Met	Pro	Leu	Leu	Trp	Phe	Val	Gln	Val	Thr	Gly	Val	Pro	Arg	Pro	Leu
1				5					10					15	
His	Asp	Gln	His	Pro	Val	Val	Gly	Gln	Leu	Leu	Gln	Val	Leu	Lys	Ala
			20				25						30		
Gly	Leu	Thr	His	Gly	Val	Leu	Val	Ser	Ile	Tyr	Asn	Gln	Ser	Trp	Ser
		35				40						45			
Leu	Arg	Gly	Arg	Ile	Gly	Gly	Trp	Gly	Arg	Val	Asn	Arg	Thr	Cys	His
	50				55					60					
Ser	Ile	Pro	Ser	Pro	Pro	His	Phe	Ser	Leu	Phe	Leu	Gly	Pro	Pro	His
65				70					75				80		
Met	Arg	Glu	Arg	Asp	Lys	Leu	Ala	Gln	Trp	Val	Gly	Ala	Gln	Ile	Gly

2402

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      50              55              60
Leu Phe Ala Val Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser
65              70              75              80
Glu Asp Leu Ile Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu
      85              90              95
Arg Ile Arg Leu Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr
      100              105              110
Leu Leu Gly Lys Pro Leu Leu Gly
      115              120

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<210> 3189
 <211> 440
 <212> DNA
 <213> Homo sapiens

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<400> 3189
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agcctgggga agcaagtccc tgttttcagt accacctgca tccccaggg cagcatcctt
120
gactccctt ctgggccagt gctgccctgc tttctctgtc tctttcaggg tgtgctgtcc
180
gacctacca aagtgacctg gatgcatgga atcgaccctg tgggtgctggt cctgatggtg
240
ggcatgggta tggtcaccct ggggttcgcc ggctgcgtgg gggctctgcg ggagaatata
300
tgcttgctca actttgtgag tggccacaga gacaagagtg ggatatgatg caatggggta
360
caggctctgc tgggcaggat tatatgttac ctggtcagag cagggtggcag ctcttaggag
420
cctcccttat ggccctgcc
440

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<210> 3190
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 3190
Gly His Gly Trp Gly Arg Thr Leu Ala Trp Leu Ser Thr Arg Gly Leu
1      5      10      15
Ser Leu Gly Lys Gln Val Pro Val Phe Ser Thr Thr Cys Ile Pro Gln
      20      25      30
Gly Ser Ile Leu Asp Ser Pro Ser Gly Pro Val Leu Pro Cys Phe Leu
      35      40      45
Cys Leu Phe Gln Gly Val Leu Ser Asp Leu Thr Lys Val Thr Arg Met
      50      55      60
His Gly Ile Asp Pro Val Val Leu Val Leu Met Val Gly Met Val Met
65      70      75      80
Phe Thr Leu Gly Phe Ala Gly Cys Val Gly Ala Leu Arg Glu Asn Ile
      85      90      95
Cys Leu Leu Asn Phe Val Ser Gly His Arg Asp Lys Ser Gly Ile
      100      105      110

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<210> 3191
 <211> 266
 <212> DNA
 <213> Homo sapiens

<400> 3191
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 accttttgcg gcagtcgcta aattgccacg ggtcgtcttt gctctctcta ctccggagcg
 120
 aacagcagga caatccacac ttccgtagcc tcttgggggtc ggccgccgag ccagcccggg
 180
 gcccgccgcc ccagcaccgc ttgcagggca gaaaagagaa gagagttgac aacatcgaga
 240
 tacagaaatt catctcccaa aaagcg
 266

<210> 3192
 <211> 84
 <212> PRT
 <213> Homo sapiens

<400> 3192
 Met Asn Phe Cys Ile Ser Met Leu Ser Thr Leu Phe Ser Phe Leu Pro
 1 5 10 15
 Cys Asn Gly Cys Trp Gly Gly Gly Pro Arg Ala Gly Ser Ala Ala Asp
 20 25 30
 Pro Arg Arg Leu Arg Lys Cys Gly Leu Ser Cys Cys Ser Leu Arg Ser
 35 40 45
 Arg Glu Ser Lys Asp Asp Pro Trp Gln Phe Ser Asp Cys Arg Lys Arg
 50 55 60
 Ser Arg Ser Met Ala Gln Val Ala Asp Thr Glu Gln Gly Thr Ile Ser
 65 70 75 80
 Pro Ser Ala Ser

<210> 3193
 <211> 567
 <212> DNA
 <213> Homo sapiens

<400> 3193
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 acagcctgcc tgagtgttca gatccaggct ctgcccagag ctggatgtaa atttatgacc
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 tggagtgagt tgttttgccc ctctgagcct cagtttctcc atctgtgaaa tggggacaac
 180
 agcagttcct tccaggaggg taaaaggagg agaaaaagaa tgcagatcca gcctcggca
 240
 gagtcagcgg ttcattgctt gcattgcaaag tgcccagccc ctggctcaaa gtctgtgttc
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 360

gctggcctcg tgattcctct ctttcctgc aggccacggt tcacctactt ccccttctcc
 420
 ctgggccacc gtcctgcat cgggcagcag tttgtcaga tggaggtgaa ggtggtcag
 480
 gcaaagctgc tgcagaggct ggagttccgg ctggtgcccg ggcagcgctt cgggctgcag
 540
 gagcaggcca cactcaagcc actggac
 567

<210> 3194
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3194
 Met Gln Ile Gln Pro Ser Ala Glu Ser Ala Val His Ala Leu His Ala
 1 5 10 15
 Lys Cys Pro Ala Pro Gly Ser Lys Ser Val Phe Ile Gln Thr Trp Val
 20 25 30
 Asn Tyr Cys Leu Pro Tyr Val Val Pro Val Gly Thr Pro Gly Ala Ala
 35 40 45
 Gly Leu Val Ile Pro Leu Phe Pro Cys Arg Pro Arg Phe Thr Tyr Phe
 50 55 60
 Pro Phe Ser Leu Gly His Arg Ser Cys Ile Gly Gln Gln Phe Ala Gln
 65 70 75 80
 Met Glu Val Lys Val Val Met Ala Lys Leu Leu Gln Arg Leu Glu Phe
 85 90 95
 Arg Leu Val Pro Gly Gln Arg Phe Gly Leu Gln Glu Gln Ala Thr Leu
 100 105 110
 Lys Pro Leu Asp
 115

<210> 3195
 <211> 987
 <212> DNA
 <213> Homo sapiens

<400> 3195
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 gcctcgacta cgaacgcaag accaaagtgg acttcgatga cttcctccca gctatccgga
 120
 agccccagac acctacctcc ttggctggat cagccaaagg tgggcaagac ggttcacagc
 180
 gttcaagcat ccactttgaa acggaagagg ctaaccgttc ctttctctcg gggatcaaga
 240
 ccattttgaa gaagagcccc gagcccaagg aggatcccg tcacctgtct gactcgtcct
 300
 catcctccgg ctccatcgtg tccttcaaaa gtgctgacag catcaaaagt cgaccaggaa
 360
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 420
 cggggaggaa agacgacgat gttgcgagca taatgaagaa atacctccag aagtaggaac
 480

cagttcagcc tccttgaagc tgcccttgaa gacttcccga ctctacaata acttggagac
 540
 agagagactg gccaggcctc cccggtggcc agagccagcc agcatggcca ccctcaagag
 600
 gcgagatgag cccacagagg catatcctgc ggggatgctg ggctcccagt gtggttggcc
 660
 tgaacaaaat aaagtgttga ctctgggca tctgtgcctt ctctatggcc ttgctacctg
 720
 ggattccaga gagttgatgg ggtgcagata ggggtaggac tgtagaata gaaccaaccc
 780
 aaactgtgtg tagtttgggg tgtatacttc tatttctctt cctacatgac tacatgccat
 840
 gaccttcctc ctctcttca cttggccagt ttcagctcac ttcctccagg aagtctttcc
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 960
 gattatattc ctttgccaat tcatttc
 987

<210> 3196

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3196

Met	Glu	Glu	Pro	Leu	Gly	Ser	Asp	Pro	Phe	Ser	Trp	Lys	Leu	Pro	Ser
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Leu	Asp	Tyr	Glu	Arg	Lys	Thr	Lys	Val	Asp	Phe	Asp	Asp	Phe	Leu	Pro
			20					25					30		
Ala	Ile	Arg	Lys	Pro	Gln	Thr	Pro	Thr	Ser	Leu	Ala	Gly	Ser	Ala	Lys
			35				40					45			
Gly	Gly	Gln	Asp	Gly	Ser	Gln	Arg	Ser	Ser	Ile	His	Phe	Glu	Thr	Glu
	50				55						60				
Glu	Ala	Asn	Arg	Ser	Phe	Leu	Ser	Gly	Ile	Lys	Thr	Ile	Leu	Lys	Lys
	65				70				75					80	
Ser	Pro	Glu	Pro	Lys	Glu	Asp	Pro	Ala	His	Leu	Ser	Asp	Ser	Ser	Ser
			85					90						95	
Ser	Ser	Gly	Ser	Ile	Val	Ser	Phe	Lys	Ser	Ala	Asp	Ser	Ile	Lys	Ser
			100					105					110		
Arg	Pro	Gly	Ile	Pro	Arg	Leu	Ala	Gly	Asp	Gly	Gly	Glu	Arg	Thr	Ser
		115				120					125				
Pro	Glu	Arg	Arg	Glu	Pro	Gly	Thr	Gly	Arg	Lys	Asp	Asp	Asp	Val	Ala
	130					135					140				
Ser	Ile	Met	Lys	Lys	Tyr	Leu	Gln	Lys							
145						150									

<210> 3197

<211> 5575

<212> DNA

<213> Homo sapiens

<400> 3197

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120
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<211> 833

<212> PRT

<213> Homo sapiens

<400> 3198

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Asn	Val	Asp	Leu	Glu	Glu	Ala	Gly	Lys	Glu	Gly	Gly	Lys	Ser	Arg	Glu
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Ala	His	Asp	Asp	Phe	Tyr	Leu	Val	Val	Cys	Ser	Ala	Cys	Asn	Gln	Val
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Val	Lys	Pro	Gln	Val	Phe	Gln	Ser	His	Cys	Glu	Arg	Arg	His	Gly	Ser
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Met	Cys	Arg	Pro	Ser	Pro	Ser	Pro	Val	Ser	Pro	Ala	Ser	Asn	Pro	Arg
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Thr	Ser	Leu	Val	Gln	Val	Lys	Thr	Lys	Ala	Cys	Leu	Ser	Gly	His	His
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Thr Pro Pro Leu Ile Lys	Pro Val Leu Met Ser Lys	Ser Val Pro Pro
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Ser Val Leu Pro Arg Pro	Ser Ser Ala Asn Ser Ile	Ser Ser Ser Thr
370	375	380
Ser Ser Asn His Ser Gly	His Thr Pro Glu Pro Pro	Leu Pro Pro Val
385	390	395
Gly Gly Asp Leu Ala Ser	Arg Leu Ser Ser Asp Glu	Gly Glu Met Asp
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Gly Ala Asp Glu Ser Glu	Lys Leu Asp Cys Gln Phe	Ser Thr His His
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Pro Arg Pro Leu Ala Phe	Cys Ser Phe Gly Ser Arg	Leu Met Gly Arg
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Gly Tyr Tyr Val Phe Asp	Arg Arg Trp Asp Arg Phe	Arg Phe Ala Leu
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Asn Ser Met Val Glu Lys	His Leu Asn Ser Gln Met	Trp Lys Lys Ile
465	470	475
Pro Pro Ala Ala Asp Ser	Pro Met Pro Ser Pro Ala	Ala His Ile Thr
485	490	495
Thr Pro Val Pro Ala Ser	Val Leu Gln Pro Phe Ser	Asn Pro Ser Ala
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Val Tyr Leu Pro Ser Ala	Pro Ile Ser Ser Arg Leu	Thr Ser Ser Tyr
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Asp Pro Ser Ala Leu Met	Ser His Thr Thr Ala Phe	Pro His Val Ala
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Ala Thr Leu Ser Ile Met	Asp Ser Thr Phe Lys Ala	Pro Ser Ala Val
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Ser Pro Ile Pro Ala Val	Ile Pro Ser Pro Ser His	Lys Pro Ser Lys
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Thr Lys Thr Ser Lys Ser	Ser Lys Val Lys Asp Leu	Ser Thr Arg Ser
595	600	605
Asp Glu Ser Pro Ser Asn	Lys Lys Arg Lys Pro Gln	Ser Ser Thr Ser
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 Ser Gly Arg Thr Ser Leu Pro Gly Gly Pro Ala Asp Ile Val Arg Gln
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 Lys Asn Ser Ser Ser Ser Ser Lys Ala Cys Lys Ile Thr Lys Met Pro
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 770 775 780
 Val Pro Asp Pro Val Asn Ser Thr Ser Ser Arg Gln Val Gly Lys Asn
 785 790 795 800
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<210> 3199

<211> 777

<212> DNA

<213> Homo sapiens

<400> 3199

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 <212> PRT
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 35 40 45
 Val Ser Pro Arg Ser Pro Val Pro Ala Val Gly Ala Ala Cys Cys Met
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 <211> 390
 <212> DNA
 <213> Homo sapiens

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<210> 3202
 <211> 116
 <212> PRT
 <213> Homo sapiens

<400> 3202
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Val Ala Glu Gly Pro Gly Gly Val Gln Val Pro Asn Pro Ser Glu Pro
      50           55           60
Asp Pro Asp Met Gly Pro Val Ser Trp Gly Pro Pro Leu Cys Pro Val
      65           70           75           80
Val Ala Asp Pro Glu Arg Glu Gly Cys Gly Asp Ala His Met Thr Leu
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Gly Ser Gln Arg Gln Pro Leu Leu Thr Leu Arg Val Pro Gly Ala Ser
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Gln Glu Gly Arg
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<210> 3203

<211> 1906

<212> DNA

<213> Homo sapiens

<400> 3203

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<210> 3204

<211> 424

<212> PRT

<213> Homo sapiens

<400> 3204

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Trp	His	Ala	Phe	Phe	Thr	Ala	Ala	Glu	Arg	Leu	Ser	Ala	Leu	His	Leu
			85					90					95		
Glu	Val	Arg	Glu	Lys	Leu	Gln	Gly	Gln	Asp	Ser	Glu	Arg	Val	Arg	Ala
			100					105					110		
Trp	Gln	Arg	Gly	Ala	Phe	His	Arg	Pro	Val	Leu	Gly	Gly	Phe	Arg	Glu

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Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp Leu
      130      135      140
Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala Ala
145      150      155      160
Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys Ala
      165      170      175
Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg Val
      180      185      190
Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu Gln
      195      200      205
Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp Met
      210      215      220
Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu Leu
225      230      235      240
Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu Ser
      245      250      255
Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly Ile
      260      265      270
Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr His
      275      280      285
Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser Leu
      290      295      300
Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser Pro
305      310      315      320
Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr Ala
      325      330      335
Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu Glu
      340      345      350
Trp Ser Asp Glu Glu Ser Pro Arg Lys Ala Ala Thr Gly Val Arg Val
      355      360      365
Arg Ala Leu Tyr Asp Tyr Ala Gly Gln Glu Ala Asp Glu Leu Ser Phe
      370      375      380
Arg Ala Gly Glu Glu Leu Leu Lys Met Ser Glu Glu Asp Glu Gln Gly
385      390      395      400
Trp Cys Gln Gly Gln Leu Gln Ser Gly Arg Ile Gly Leu Tyr Pro Ala
      405      410      415
Asn Tyr Val Glu Cys Val Gly Ala
      420

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<210> 3205

<211> 1482

<212> DNA

<213> Homo sapiens

<400> 3205

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60
ggtctggcca agacaccct atctgctctg ggcctgaaac ctcacaaccc agcggacatc
120
ctgttgacc ccacaggaga gccccggagc tatgtggagt ctgtggcacg gacagcggcg
180
gctggacccc gagctcagga ctctgagccc aagagcttta gtgctccagc caccagggcc
240

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tatggccatg agatacccct gaggaacggg accctgggtg gtcctttgt cccccccagc
 300
 cccctctcca ccagcagccc catcctcagt gctgacagca cttcagtggg gagtttcccg
 360
 tcgggagaga gcagtgacca gggccccgg acgcccaccc agcctctgtt ggagtctggc
 420
 ttccgctcag gcagcctggg acagcccagc ccgtctgccc agagaaacta ccagagctct
 480
 tctcctctcc cgactgtggg cagtagctac agcagccccg actactcact tcagcatttc
 540
 agctcctctc cggaaagcca ggctcgagct cagttcagtg tggtggcgt ccacacgggtg
 600
 cctgggagcc ctcaggcgcg tcacagaaca gtgggcacca acactcccc tagtcctggc
 660
 ttgggctggc gggccatcaa tcccagcatg gctgccccca gcagtcccag tttgagccat
 720
 caccagatga tgggtccacc aggcactggc ttccatggta gcactgtctc cagccccag
 780
 agcagtgcag cgaccacccc ggggagcccc agcctgtgtc ggcaccacagc aggggtctac
 840
 caggtttctg gcctccacaa caaagtggcc accaccccgg ggagtcccag cctgggcccgg
 900
 caccctgggg ctcaccaagg caacctggcc tccggtcttc atagcaatgc aatagccagc
 960
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 1020
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 1080
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 1200
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 1260
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 1320
 gtcgccagcg gcattgccag tccagtggtt ggcagcacg tctccttctc ccacactctg
 1380
 cccgacttct ccaagtactc catgccagac aacagcccgg agacgcgggc taaagtgaag
 1440
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 1482

<210> 3206

<211> 494

<212> PRT

<213> Homo sapiens

<400> 3206

Xaa Glu Met Glu Gly Thr Ser Pro Ser Ser Pro Pro Pro Ser Gly Val
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 Arg Ser Pro Pro Gly Leu Ala Lys Thr Pro Leu Ser Ala Leu Gly Leu
 20 25 30
 Lys Pro His Asn Pro Ala Asp Ile Leu Leu His Pro Thr Gly Glu Pro

2418

2419

<400> 3209

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120
gaagaatcag cccacagtg caggggtgtg ttagtgggga acgggctctg ggctcctgtg
180
ggaaccaggg accccctatc ttggtaccgg tcattggatg tatccccagc tcatgctgtg
240
gtctgtcttg gcccggtgtg tcaccctgtg ttcattctctc tcccagccat ggcctctcaa
300
actgggggtt tegtctccct atgagggggg cctggtatgt acgcgt
346

<210> 3210

<211> 95

<212> PRT

<213> Homo sapiens

<400> 3210

Met	Arg	Pro	Ala	Leu	Ser	Leu	Leu	Thr	Trp	Ala	Leu	Pro	Thr	Gly	Lys
1				5					10					15	
Cys	Ser	His	Ser	Arg	Arg	Ile	Ser	Pro	Thr	Val	Gln	Gly	Cys	Val	Ser
			20					25					30		
Gly	Glu	Arg	Ala	Leu	Gly	Ser	Cys	Gly	Asn	Gln	Gly	Pro	Pro	Ile	Leu
		35					40				45				
Val	Pro	Val	Ile	Gly	Cys	Ile	Pro	Ser	Ser	Cys	Leu	Cys	Leu	Ser	Trp
	50				55					60					
Pro	Val	Trp	Ser	Pro	Cys	Val	His	Leu	Ser	Pro	Ser	His	Gly	Leu	Ser
65					70					75				80	
Asn	Trp	Gly	Phe	Arg	Leu	Pro	Met	Arg	Gly	Ser	Trp	Tyr	Val	Arg	
				85					90					95	

<210> 3211

<211> 1728

<212> DNA

<213> Homo sapiens

<400> 3211

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tggacaaaag attccaagtc gatagcccag gccaaagaaa gcgcagggga caactccagt
120
gtttccttgg ccatcgtgca agccagtccg aaggaccagg gactctatta ctgctgcac
180
aagaacagct acggaaaagt gactgctgaa tttaacctca cagctgaagt tctcaaacag
240
ctgtcaagtc acacagaata ctaaaggatg tgaagagatt gaattcagcc aactcatctt
300
caaagaagac ttctccatg acagctactt tgggggccgc ctgcgtgggc agatcgccac
360
ggaggagctg cactttggag aaggggttca ccgcaaagcc ttccgcagca cagtgatgca
420

cgccctcatg cctgtcttca aacctggcca tgcctgtgtg ctttaagggtgc acaatgccat
 480
 tgcctatggg accagaaata atgatgagct catccaaagg aactacaaac tgcgtgccca
 540
 ggaatgctat gttcaaaata ctgccaggta ttatgccaaag atctacgctg ctgaagcaca
 600
 gcctctggaa ggctttggag aagtacctga gatcattcct atttttctta tccatcggcc
 660
 tgagaacaat atcccgtatg ctacagtggg ggaggagctg attggagaat ttgtgaagta
 720
 ttccatcagg gatgggaaag aaataaactt cttgagaaga gaatcagaag ctggtcagaa
 780
 atgttgcacc ttccagcact ggggtgtacca gaaaacaagt ggctgcctcc tggtgacgga
 840
 catgcaaggt gtaggaatga agctaactga cgttggcata gcaacgctgg ctaaagggtg
 900
 caagggattt aaaggcaact gttccatgac cttcattgat cagtttaag cactacacca
 960
 gtgtaacaag tattgcaaaa tgctgggact gaaatccctt caaaacaaca accagaaaca
 1020
 gaagcagccg agcattggga aaagcaaagt tcaaacaaac tctatgacag taaagaaggc
 1080
 agggcctgag accccaggcg aaaagaaaac ctaacgtccc cgggtaacct aatggccact
 1140
 ggctagcagc acacaatctc gccagggaaa atctgaggcc acacaggaga gaatatacag
 1200
 cctgcagaga gtgcgtggca atccttactc ccagccgact gtgcgccaag atgcttctaa
 1260
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 1320
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 1380
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 1440
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 1560
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 1680
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 1728

<210> 3212

<211> 87

<212> PRT

<213> Homo sapiens

<400> 3212

Ser Gly Asn Ile Lys Leu Ser Tyr Gln Phe Ser Glu Ile His Glu Asp
 1 5 10 15
 Ser Thr Val Cys Trp Thr Lys Asp Ser Lys Ser Ile Ala Gln Ala Lys

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                20                25                30
Lys Ser Ala Gly Asp Asn Ser Ser Val Ser Leu Ala Ile Val Gln Ala
                35                40                45
Ser Pro Lys Asp Gln Gly Leu Tyr Tyr Cys Cys Ile Lys Asn Ser Tyr
                50                55                60
Gly Lys Val Thr Ala Glu Phe Asn Leu Thr Ala Glu Val Leu Lys Gln
65                70                75                80
Leu Ser Ser His Thr Glu Tyr
                85

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<210> 3213
 <211> 348
 <212> DNA
 <213> Homo sapiens

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<400> 3213
acgcgtgaag gggaagcggc ggggtagtaa cagattatgg gcaacagtcc ttttaattaa
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tctaccgtca tcatggctaa tgaggactgt cccaaggctg ctgatagtcc tttttcatca
120
gataaacatg cccaactcat cttggcccaa atcaataaga tgagaaatgg acagcatttc
180
tgtgatgtgc agctgcaagt tggacaggaa agtttttaaag ctcacgggct ggttttggct
240
gccagcagtc cttactttgc agctttgttc actggaggaa tgaaagagtc ctcaaaagat
300
gttgtaccga ttctaggaat tgaagcagga atctttcaga tactttcta
348

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<210> 3214
 <211> 92
 <212> PRT
 <213> Homo sapiens

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<400> 3214
Met Ala Asn Glu Asp Cys Pro Lys Ala Ala Asp Ser Pro Phe Ser Ser
1                5                10                15
Asp Lys His Ala Gln Leu Ile Leu Ala Gln Ile Asn Lys Met Arg Asn
                20                25                30
Gly Gln His Phe Cys Asp Val Gln Leu Gln Val Gly Gln Glu Ser Phe
                35                40                45
Lys Ala His Arg Leu Val Leu Ala Ala Ser Ser Pro Tyr Phe Ala Ala
50                55                60
Leu Phe Thr Gly Gly Met Lys Glu Ser Ser Lys Asp Val Val Pro Ile
65                70                75                80
Leu Gly Ile Glu Ala Gly Ile Phe Gln Ile Leu Leu
                85                90

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<210> 3215
 <211> 597
 <212> DNA
 <213> Homo sapiens

<400> 3215

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 120
 accttcaagt tcgacttgga cggggacgca cccgatgaaa ttgccacgta tatggtggag
 180
 catgacttta tcctgcaggc cgagcgggaa acgttcatcg agcagatgaa ggatgtcatg
 240
 gacaaggcag aggacatgct cagcgaggac acagacgccg accgtggctc cgacccaggg
 300
 accagcccgc cacacctcag cacctgcggc ctggggcaccg gggaggagag cgcacaatcc
 360
 caagccaacg cccccgtgta tcagcagaac gtcctgcaca ccgggaagag gtggttcac
 420
 atctgtccgg tgctgagcc ccccgcccc gagggccctt gaatcttcgc cccacttcc
 480
 tctaagctcc ctgccgccag aagccagcca agattcagcg ccctataaag accagctgtc
 540
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 597

<210> 3216

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3216

Thr	Arg	Ala	Arg	Ser	Arg	Gln	Glu	Arg	Ala	Ser	Arg	Pro	Arg	Leu	Thr
1				5					10					15	
Ile	Leu	Asn	Val	Cys	Asn	Thr	Gly	Asp	Lys	Met	Val	Glu	Cys	Gln	Leu
			20					25					30		
Glu	Thr	His	Asn	His	Lys	Met	Val	Thr	Phe	Lys	Phe	Asp	Leu	Asp	Gly
		35				40						45			
Asp	Ala	Pro	Asp	Glu	Ile	Ala	Thr	Tyr	Met	Val	Glu	His	Asp	Phe	Ile
	50					55					60				
Leu	Gln	Ala	Glu	Arg	Glu	Thr	Phe	Ile	Glu	Gln	Met	Lys	Asp	Val	Met
65				70					75					80	
Asp	Lys	Ala	Glu	Asp	Met	Leu	Ser	Glu	Asp	Thr	Asp	Ala	Asp	Arg	Gly
			85					90						95	
Ser	Asp	Pro	Gly	Thr	Ser	Pro	Pro	His	Leu	Ser	Thr	Cys	Gly	Leu	Gly
		100						105					110		
Thr	Gly	Glu	Glu	Ser	Arg	Gln	Ser	Gln	Ala	Asn	Ala	Pro	Val	Tyr	Gln
		115				120						125			
Gln	Asn	Val	Leu	His	Thr	Gly	Lys	Arg	Trp	Phe	Ile	Ile	Cys	Pro	Val
	130					135					140				
Pro	Glu	Pro	Pro	Ala	Pro	Glu	Gly	Pro							
145						150									

<210> 3217

<211> 2570

<212> DNA

<213> Homo sapiens

<400> 3217

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120
accatacca ggcactatga gctttacagg cgctgcaaac tggaggaaat gggctttaca
180
gatgtgggccc cagaaaacaa gccagtcagt gttcaagaga cctatgaagc caaaagacat
240
gagttccatg gtgaacgtca gaggaaggaa gaagaaatga aacagatgtt tgtgcagcga
300
gtaaaggaga aagaagccat attgaaagaa gctgagagag agctacaggc caaatttgag
360
caccttaaga gacttcacca agaagagaga atgaagcttg aagaacaaag aagacttttg
420
gaagaagaaa taattgcttt ctctaaaaag aaagctacct ccgagatatt tcacagccag
480
tcctttctgg caacaggcag caacctgagt aaggacaagg accataagaa ctccaatttt
540
ttgtaaaaca gaagttccag agcacagaag gtcacatca caagcaaact ttattaaaaa
600
aaaactagaa gtgtgctttg attttgctgt tatttgtttt atcacttcta tatttggtga
660
acagccacag ttactgatat ttatggaaaa gtactttcaa gtacaaggtc aatacataag
720
ccagagtga tgatactaca agttgagcat ctctaattca aaaatctgaa atccagaagc
780
ttcaaaatct gaatcttttt gagcactgac ttgacccac aagtggaaaa ttccccaccc
840
gacaccttg ctttctgatg gttcagttta aacagatttt gtttcttgca caaaattttt
900
gtataaatta ctttcaggct atatgtataa ggtggatgtg aaacatgaat tatgtaatta
960
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1020
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1080
gttgtagaa atgtttaagt tgctgttctg tgatgaatct aaatcttttc tcttgctacc
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1260
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1320
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1380
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1560
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1620

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 1860
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 1920
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 1980
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 2040
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 2220
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 2280
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 2340
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 2400
 tggctcagt cataatcatt agggggaact ctagccaaat ggtttaactt ctgcctgtgg
 2460
 aactggggat tgggtgggca ggaaaagggtg atatccattc tttctgataa ctagatgggtg
 2520
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 2570

<210> 3218

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3218

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Glu	Asn	His	Cys	Asp	Phe	Val	Lys	Leu	Arg	Glu	Met	Leu	Ile	Cys	Thr
			20					25					30		
Asn	Met	Glu	Asp	Leu	Arg	Glu	Gln	Thr	His	Thr	Arg	His	Tyr	Glu	Leu
		35					40					45			
Tyr	Arg	Arg	Cys	Lys	Leu	Glu	Met	Gly	Phe	Thr	Asp	Val	Gly	Pro	
	50					55				60					
Glu	Asn	Lys	Pro	Val	Ser	Val	Gln	Glu	Thr	Tyr	Glu	Ala	Lys	Arg	His
65				70					75					80	
Glu	Phe	His	Gly	Glu	Arg	Gln	Arg	Lys	Glu	Glu	Glu	Met	Lys	Gln	Met
			85					90						95	
Phe	Val	Gln	Arg	Val	Lys	Glu	Lys	Glu	Ala	Ile	Leu	Lys	Glu	Ala	Glu
			100					105					110		
Arg	Glu	Leu	Gln	Ala	Lys	Phe	Glu	His	Leu	Lys	Arg	Leu	His	Gln	Glu

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<210> 3219
<211> 1241
<212> DNA
<213> Homo sapiens
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2426

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 1241

<210> 3220

<211> 413

<212> PRT

<213> Homo sapiens

<400> 3220

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Leu	Gly	Cys	Ala	Ser	Ser	Gly	Arg	His	Val	Val	Pro	Ala	Gln	Val	His
		20					25					30			
Val	Asn	Gly	Gly	Xaa	Val	Thr	Ser	Glu	Arg	Glu	Thr	Asp	Ile	Leu	Asp
	35						40					45			
Asp	Glu	Leu	Pro	Asn	Gln	Asp	Gly	His	Ser	Ala	Gly	Ser	Met	Gly	Thr
	50				55						60				
Leu	Ser	Ser	Leu	Asp	Gly	Val	Thr	Asn	Ile	Ser	Glu	Gly	Gly	Tyr	Pro
65				70				75						80	
Glu	Ala	Leu	Ser	Pro	Leu	Thr	Asn	Gly	Leu	Asp	Lys	Ser	Tyr	Pro	Met
			85					90					95		
Glu	Pro	Met	Val	Asn	Gly	Gly	Gly	Tyr	Pro	Tyr	Glu	Ser	Ala	Ser	Arg
		100					105						110		
Ala	Gly	Pro	Ala	His	Ala	Gly	His	Thr	Ala	Pro	Met	Arg	Pro	Ser	Tyr
	115						120					125			
Ser	Ala	Gln	Glu	Gly	Leu	Ala	Gly	Tyr	Gln	Arg	Glu	Gly	Pro	His	Pro
	130				135						140				
Ala	Trp	Pro	Gln	Pro	Val	Thr	Thr	Ser	His	Tyr	Ala	His	Asp	Pro	Ser
145				150						155				160	
Gly	Met	Phe	Arg	Ser	Gln	Ser	Phe	Ser	Glu	Ala	Glu	Pro	Gln	Leu	Pro
			165					170					175		
Pro	Ala	Pro	Val	Arg	Gly	Gly	Ser	Ser	Arg	Glu	Ala	Val	Gln	Arg	Gly
		180					185						190		
Leu	Asn	Ser	Trp	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro	Arg	Pro
	195					200						205			
Pro	Pro	Arg	Gln	Gln	Glu	Arg	Ala	His	Leu	Glu	Ser	Leu	Val	Ala	Ser
	210				215						220				
Arg	Pro	Ser	Pro	Gln	Pro	Leu	Ala	Glu	Thr	Pro	Ile	Pro	Ser	Leu	Pro
225				230						235				240	
Glu	Phe	Pro	Arg	Ala	Ala	Ser	Gln	Gln	Glu	Ile	Glu	Gln	Ser	Ile	Glu
			245						250				255		
Thr	Leu	Asn	Met	Leu	Met	Leu	Asp	Leu	Glu	Pro	Ala	Ser	Ala	Ala	Ala
		260				265							270		
Pro	Leu	His	Lys	Ser	Gln	Ser	Val	Pro	Gly	Ala	Trp	Pro	Gly	Ala	Ser
	275					280						285			
Pro	Leu	Ser	Ser	Gln	Pro	Leu	Ser	Gly	Ser	Ser	Arg	Gln	Ser	His	Pro
	290					295					300				
Leu	Thr	Gln	Ser	Arg	Ser	Gly	Tyr	Ile	Pro	Ser	Gly	His	Ser	Leu	Gly
305				310					315					320	
Thr	Pro	Glu	Pro	Ala	Pro	Arg	Ala	Ser	Leu	Glu	Ser	Val	Pro	Pro	Gly
			325					330					335		
Arg	Ser	Tyr	Ser	Pro	Tyr	Asp	Tyr	Gln	Pro	Cys	Leu	Ala	Gly	Pro	Asn

	340		345		350										
Gln	Asp	Phe	His	Ser	Lys	Ser	Pro	Ala	Ser	Ser	Ser	Leu	Pro	Ala	Phe
	355						360					365			
Leu	Pro	Thr	Thr	His	Ser	Pro	Gly	Pro	Gln	Gln	Pro	Pro	Ala	Ser	
	370					375					380				
Leu	Pro	Gly	Leu	Thr	Ala	Gln	Pro	Leu	Leu	Ser	Pro	Lys	Glu	Ala	Thr
385					390					395				400	
Ser	Asp	Pro	Ser	Arg	Thr	Pro	Glu	Glu	Glu	Pro	Leu	Asn			
			405					410							

<210> 3221

<211> 1585

<212> DNA

<213> Homo sapiens

<400> 3221

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120
gcaggctgga aggagatgcg atgccacctg cgcgccaacg gctacctgtg caagtaccag
180
tttgaggctt tgtgtcctgc gccgcgcccc ggggcccgtt ctaacttgag ctatcgcgcg
240
cccttccagc tgcacagcgc cgctctggac ttcagtccac ctgggaccga ggtgagtgcg
300
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360
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420
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480
acgggcttcg agctggggaa ggacggccgc tcttgtgtga ccagtgggga aggacagccg
540
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600
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720
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1140

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ggggacatgg gcactcctgt gaacagtttt tcacttttga tgaaacgggg aaccaagagg
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 1320
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 1380
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 1440
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<210> 3222

<211> 331

<212> PRT

<213> Homo sapiens

<400> 3222

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Trp	Val	Glu	Glu	Pro	Gln	Arg	Ser	Cys	Thr	Ala	Arg	Arg	Trp	His	Ile
		20						25					30		
Gln	Ala	Thr	Gly	Gly	Val	Glu	Pro	Ala	Gly	Trp	Lys	Glu	Met	Arg	Cys
		35						40				45			
His	Leu	Arg	Ala	Asn	Gly	Tyr	Leu	Cys	Lys	Tyr	Gln	Phe	Glu	Val	Leu
	50					55					60				
Cys	Pro	Ala	Pro	Arg	Pro	Gly	Ala	Ala	Ser	Asn	Leu	Ser	Tyr	Arg	Ala
65					70					75				80	
Pro	Phe	Gln	Leu	His	Ser	Ala	Ala	Leu	Asp	Phe	Ser	Pro	Pro	Gly	Thr
				85					90					95	
Glu	Val	Ser	Ala	Leu	Cys	Arg	Gly	Gln	Leu	Pro	Ile	Ser	Val	Thr	Cys
			100					105					110		
Ile	Ala	Asp	Glu	Ile	Gly	Ala	Arg	Trp	Asp	Lys	Leu	Ser	Gly	Asp	Val
		115					120					125			
Leu	Cys	Pro	Cys	Pro	Gly	Arg	Tyr	Leu	Arg	Ala	Gly	Lys	Cys	Ala	Glu
	130					135					140				
Leu	Pro	Asn	Cys	Leu	Asp	Asp	Leu	Gly	Gly	Phe	Ala	Cys	Glu	Cys	Ala
145					150					155				160	
Thr	Gly	Phe	Glu	Leu	Gly	Lys	Asp	Gly	Arg	Ser	Cys	Val	Thr	Ser	Gly
				165					170					175	
Glu	Gly	Gln	Pro	Thr	Leu	Gly	Gly	Thr	Gly	Val	Pro	Thr	Arg	Arg	Pro
			180					185					190		
Pro	Ala	Thr	Ala	Thr	Ser	Pro	Val	Pro	Gln	Arg	Thr	Trp	Pro	Ile	Arg
		195					200					205			
Val	Asp	Glu	Lys	Leu	Gly	Glu	Thr	Pro	Leu	Val	Pro	Glu	Gln	Asp	Asn
	210					215				220					
Ser	Val	Thr	Ser	Ile	Pro	Glu	Ile	Pro	Arg	Trp	Gly	Ser	Gln	Ser	Thr
225					230					235				240	
Met	Ser	Thr	Leu	Gln	Met	Ser	Leu	Gln	Ala	Glu	Ser	Lys	Ala	Thr	Ile

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<210> 3223
<211> 985
<212> DNA
<213> Homo sapiens
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<210> 3224

<211> 224

<212> PRT

<213> Homo sapiens

<400> 3224

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Ser Asn Pro Asp Ser Leu Ile Phe Gly Ala Leu Thr Ile Met Thr Gly
          20           25           30
Val Ile Gly Val Ile Leu Gly Ala Glu Ala Ser Arg Arg Tyr Lys Lys
          35           40           45
Val Ile Pro Gly Ala Glu Pro Leu Ile Cys Ala Ser Ser Leu Leu Ala
          50           55           60
Thr Ala Pro Cys Leu Tyr Leu Ala Leu Val Leu Ala Pro Thr Thr Leu
          65           70           75           80
Leu Ala Ser Tyr Val Phe Leu Gly Leu Gly Glu Leu Leu Leu Ser Cys
          85           90           95
Asn Trp Ala Val Val Ala Asp Ile Leu Leu Ser Val Val Val Pro Arg
          100          105          110
Cys Arg Gly Thr Ala Glu Ala Leu Gln Ile Thr Val Gly His Ile Leu
          115          120          125
Gly Asp Ala Gly Ser Pro Tyr Leu Thr Gly Leu Ile Ser Ser Val Leu
          130          135          140
Arg Pro Gly Ala Leu Thr Pro Leu Gln Arg Phe Arg Ser Leu Gln Gln
          145          150          155          160
Ser Phe Leu Cys Cys Ala Phe Val Ile Ala Leu Gly Gly Gly Cys Phe
          165          170          175
Leu Leu Thr Ala Leu Tyr Leu Glu Arg Asp Glu Thr Arg Ala Trp Gln
          180          185          190
Pro Val Thr Gly Thr Pro Asp Ser Asn Asp Val Asp Ser Asn Asp Leu
          195          200          205
Glu Arg Gln Gly Leu Leu Ser Gly Ala Gly Ala Ser Thr Glu Glu Pro
          210          215          220

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<210> 3225

<211> 506

<212> DNA

<213> Homo sapiens

<400> 3225

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120
agaggaacat tttaaaggc ctacgtccat gcaccttctt tattcaagaa gctaccaaga
180
attctgcctg tttcccagtc cctaaaatgc ctgtgccatg tgccctgggt gaagaactag
240
tcccatgcca caggggtaca ggccccgctg tagtttgccc agcccaaccg cagcaagggg
300
aagtgaacc acagcctcaa cccacacaga ggatgaacc accttctgca gctaaaaata
360
accacaccgc ctttgagggt agccacccaa gatgcagggt gggctgtatg aaactccacg
420

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aacatgggat gagtttcatt ttcaggggttc cgagggggcca tgagtgggtac caagatccct

480

ggaggtgccc ttggtttccc atgtag

506

<210> 3226

<211> 137

<212> PRT

<213> Homo sapiens

<400> 3226

Met	Lys	Val	Ile	Phe	Pro	Lys	Leu	Lys	Gln	Arg	Asn	Ile	Leu	Asn	Gly
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Leu	Arg	Pro	Cys	Thr	Phe	Phe	Ile	Gln	Glu	Ala	Thr	Lys	Asn	Ser	Ala
		20						25					30		
Cys	Phe	Pro	Val	Pro	Lys	Met	Pro	Val	Pro	Cys	Ala	Leu	Gly	Glu	Glu
	35						40					45			
Leu	Val	Pro	Cys	His	Arg	Gly	Thr	Gly	Pro	Ala	Val	Val	Trp	Pro	Ala
50						55					60				
Gln	Pro	Gln	Gln	Gly	Glu	Val	Glu	Pro	Gln	Pro	Gln	Pro	Thr	Gln	Arg
65				70					75					80	
Met	Glu	Pro	Pro	Ser	Ala	Ala	Lys	Asn	Asn	His	Thr	Ala	Phe	Glu	Val
				85					90					95	
Ser	His	Pro	Arg	Cys	Arg	Trp	Gly	Cys	Met	Lys	Leu	His	Glu	His	Gly
		100					105					110			
Met	Ser	Phe	Ile	Phe	Arg	Val	Pro	Arg	Gly	His	Glu	Trp	Tyr	Gln	Asp
	115					120						125			
Pro	Trp	Arg	Cys	Pro	Trp	Phe	Pro	Met							
	130					135									

<210> 3227

<211> 1623

<212> DNA

<213> Homo sapiens

<400> 3227

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120
gtgtttcctt cccgccaggc aagtgccctt agaaaccggg ccccgcccc ttcctggcct
180
gcattcccat cccctctccc ggggcggagg tgaggacctc cttggttcct ttggttctgt
240
cagtgaagccc cttccttggc catgaagctc gtgaggaaga acatcgagaa ggacaatgag
300
ggccaggtga ccctgggtccc cgaggagcct gaggacatgt ggcacactta caacctcgtg
360
caggtgggag acagcctgag cgcctccacc atccgcaagg tacagacaga gtcctccacg
420
ggcagcgtgg gcagcaaccg ggtccgcaat accctcactc tctgcgtgga ggccatcgac
480
ttcgactctc aagcctgcca gctgcggggt aaggggacca acatccaaga gaatgagtat
540

gtcaagatgg gggcttacca caccatcgag ctggagccca accgccagtt caccctggcc
 600
 aagaagcagt gggatagtgt ggtactggag cgcacgagc aggcctgtga cccagcctgg
 660
 agcgtgatg tggcggctgt ggtcatgcag gaaggcctcg cccatatctg cttagtcaact
 720
 cccagcatga ccctcactcg ggccaagggtg gaggtgaaca tccctaggaa aaggaaaggc
 780
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 900
 agggagcagt tctgcgacta catgtttcaa caagcagtga agaccgacaa caaactgctc
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 1020
 aaagaggccc tttgtgacct tactgtggct agccgccttt cagacactaa agctgctggg
 1080
 gaagtcaaag ccttgatga cttctataaa atgttacagc atgaaccgga tcgagctttc
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 1380
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 1500
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 1620
 aaa
 1623

<210> 3228

<211> 385

<212> PRT

<213> Homo sapiens

<400> 3228

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Thr	Leu	Val	Pro	Glu	Glu	Pro	Glu	Asp	Met	Trp	His	Thr	Tyr	Asn	Leu
			20					25					30		
Val	Gln	Val	Gly	Asp	Ser	Leu	Arg	Ala	Ser	Thr	Ile	Arg	Lys	Val	Gln
		35					40					45			
Thr	Glu	Ser	Ser	Thr	Gly	Ser	Val	Gly	Ser	Asn	Arg	Val	Arg	Thr	Thr
	50					55				60					
Leu	Thr	Leu	Cys	Val	Glu	Ala	Ile	Asp	Phe	Asp	Ser	Gln	Ala	Cys	Gln

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65              70              75              80
Leu Arg Val Lys Gly Thr Asn Ile Gln Glu Asn Glu Tyr Val Lys Met
                        85              90              95
Gly Ala Tyr His Thr Ile Glu Leu Glu Pro Asn Arg Gln Phe Thr Leu
                        100              105              110
Ala Lys Lys Gln Trp Asp Ser Val Val Leu Glu Arg Ile Glu Gln Ala
                        115              120              125
Cys Asp Pro Ala Trp Ser Ala Asp Val Ala Ala Val Val Met Gln Glu
                        130              135              140
Gly Leu Ala His Ile Cys Leu Val Thr Pro Ser Met Thr Leu Thr Arg
145              150              155              160
Ala Lys Val Glu Val Asn Ile Pro Arg Lys Arg Lys Gly Asn Cys Ser
                        165              170              175
Gln His Asp Arg Ala Leu Glu Arg Phe Tyr Glu Gln Val Val Gln Ala
                        180              185              190
Ile Gln Arg His Ile His Phe Asp Val Val Lys Cys Ile Leu Val Ala
                        195              200              205
Ser Pro Gly Phe Val Arg Glu Gln Phe Cys Asp Tyr Met Phe Gln Gln
210              215              220
Ala Val Lys Thr Asp Asn Lys Leu Leu Leu Glu Asn Arg Ser Lys Phe
225              230              235              240
Leu Gln Val His Ala Ser Ser Gly His Lys Tyr Ser Leu Lys Glu Ala
                        245              250              255
Leu Cys Asp Pro Thr Val Ala Ser Arg Leu Ser Asp Thr Lys Ala Ala
                        260              265              270
Gly Glu Val Lys Ala Leu Asp Asp Phe Tyr Lys Met Leu Gln His Glu
275              280              285
Pro Asp Arg Ala Phe Tyr Gly Leu Lys Gln Val Glu Lys Ala Asn Glu
290              295              300
Ala Met Ala Ile Asp Thr Leu Leu Ile Ser Asp Glu Leu Phe Arg His
305              310              315              320
Gln Asp Val Ala Thr Arg Ser Arg Tyr Val Arg Leu Val Asp Ser Val
                        325              330              335
Lys Glu Asn Ala Gly Thr Val Arg Ile Phe Ser Ser Leu His Val Ser
                        340              345              350
Gly Glu Gln Leu Ser Gln Leu Thr Gly Val Ala Ala Ile Leu Arg Phe
355              360              365
Pro Val Pro Glu Leu Ser Asp Gln Glu Gly Asp Ser Ser Ser Glu Glu
370              375              380
Asp
385

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<210> 3229

<211> 1008

<212> DNA

<213> Homo sapiens

<400> 3229

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180

aggcgggagg cgctgagagt ctgtgaggag gtccgtggac agactgcttt gctcgttgtt
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 300
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 360
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 420
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 480
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 540
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 780
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 1008

<210> 3230

<211> 232

<212> PRT

<213> Homo sapiens

<400> 3230

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Cys	Ser	Asp	Gly	Phe	Ala	Phe	Pro	Gln	Tyr	Pro	Ile	Lys	Pro	Tyr	His
			20					25					30		
Leu	Lys	Arg	Ile	His	Arg	Ala	Val	Leu	Arg	Gly	Asn	Leu	Glu	Glu	Leu
			35				40					45			
Lys	Tyr	Leu	Leu	Leu	Thr	Tyr	Tyr	Asp	Ile	Asn	Lys	Arg	Asp	Arg	Lys
	50					55					60				
Glu	Arg	Thr	Ala	Leu	His	Leu	Ala	Cys	Ala	Thr	Gly	Gln	Pro	Glu	Met
65					70					75				80	
Val	His	Leu	Leu	Val	Ser	Arg	Arg	Cys	Glu	Leu	Asn	Leu	Cys	Asp	Arg
				85					90					95	
Glu	Asp	Arg	Thr	Pro	Leu	Ile	Lys	Ala	Val	Gln	Leu	Arg	Gln	Glu	Ala
				100				105					110		
Cys	Ala	Thr	Leu	Leu	Leu	Gln	Asn	Gly	Ala	Asp	Pro	Asn	Ile	Thr	Asp
			115				120					125			
Val	Phe	Gly	Arg	Thr	Ala	Leu	His	Tyr	Ala	Val	Tyr	Asn	Glu	Asp	Thr
			130				135					140			
Ser	Met	Ile	Glu	Lys	Leu	Leu	Ser	His	Gly	Thr	Asn	Ile	Glu	Glu	Cys

145 150 155 160
 Ser Lys Asn Glu Tyr Gln Pro Leu Leu Leu Ala Val Ser Arg Arg Lys
 165 170 175
 Val Lys Met Val Glu Phe Leu Leu Lys Lys Lys Ala Asn Val Asn Ala
 180 185 190
 Ile Asp Tyr Leu Gly Arg Ser Ala Leu Ile Leu Ala Val Thr Leu Gly
 195 200 205
 Glu Lys Asp Ile Val Ile Leu Leu Leu Gln His Asn Ile Asp Val Phe
 210 215 220
 Ser Arg Asp Val Tyr Gly Lys Leu
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<210> 3231

<211> 1367

<212> DNA

<213> Homo sapiens

<400> 3231

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 taacagtcgc ggagccggcc gcgtcgtgag ggggtcggca cggggagtcg ggcggctctg
 180
 tgcattcttg ctacctgtgg gtcgaagatg tcggacatcg gagactggtt caggagcatc
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 300
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 aatgagctta ttggaaatct ggttgacat ctttattttt tcctaagtgt cagataccca
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tcagtacgag acaaagtttc ttaaattcccg aagaaaaata taagtgttcc acaagtttca
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<210> 3232

<211> 251

<212> PRT

<213> Homo sapiens

<400> 3232

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Tyr	Trp	Phe	Ala	Ala	Thr	Val	Ala	Val	Pro	Leu	Val	Gly	Lys	Leu	Gly
			20					25					30		
Leu	Ile	Ser	Pro	Ala	Tyr	Leu	Phe	Leu	Trp	Pro	Glu	Ala	Phe	Leu	Tyr
		35					40					45			
Arg	Phe	Gln	Ile	Trp	Arg	Pro	Ile	Thr	Ala	Thr	Phe	Tyr	Phe	Pro	Val
	50					55					60				
Gly	Pro	Gly	Thr	Gly	Phe	Leu	Tyr	Leu	Val	Asn	Leu	Tyr	Phe	Leu	Tyr
65					70					75				80	
Gln	Tyr	Ser	Thr	Arg	Leu	Glu	Thr	Gly	Ala	Phe	Asp	Gly	Arg	Pro	Ala
				85					90					95	
Asp	Tyr	Leu	Phe	Met	Leu	Leu	Phe	Asn	Trp	Ile	Cys	Ile	Val	Ile	Thr
			100					105					110		
Gly	Leu	Ala	Met	Asp	Met	Gln	Leu	Leu	Met	Ile	Pro	Leu	Ile	Met	Ser
		115					120					125			
Val	Leu	Tyr	Val	Trp	Ala	Gln	Leu	Asn	Arg	Asp	Met	Ile	Val	Ser	Phe
	130					135					140				
Trp	Phe	Gly	Thr	Arg	Phe	Lys	Ala	Cys	Tyr	Leu	Pro	Trp	Val	Ile	Leu
145					150					155				160	
Gly	Phe	Asn	Tyr	Ile	Ile	Gly	Gly	Ser	Val	Ile	Asn	Glu	Leu	Ile	Gly
				165					170					175	
Asn	Leu	Val	Gly	His	Leu	Tyr	Phe	Phe	Leu	Met	Phe	Arg	Tyr	Pro	Met
			180					185					190		
Asp	Leu	Gly	Gly	Arg	Asn	Phe	Leu	Ser	Thr	Pro	Gln	Phe	Leu	Tyr	Arg
		195					200					205			
Trp	Leu	Pro	Ser	Arg	Arg	Gly	Gly	Val	Ser	Gly	Phe	Gly	Val	Pro	Pro
	210					215						220			
Ala	Ser	Met	Arg	Arg	Ala	Ala	Asp	Gln	Asn	Gly	Gly	Gly	Gly	Arg	His
225					230					235				240	
Asn	Trp	Gly	Gln	Gly	Phe	Arg	Leu	Gly	Asp	Gln					
				245					250						

<210> 3233

<211> 975

<212> DNA

<213> Homo sapiens

<400> 3233

nacgcgtacg tgggtggagct ctgcgtgttt actatTTTTg gaaatgaaga aaatggaaag
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 120
 atgacaattt tcacatctcc cgcttcccc tccaaagagt tctactgtc caattctgaa
 180
 aaggaacgtt atgaaaaaga attcagccaa gaaagacaac aagaaatttt gagaagagca
 240
 gcaagagctt tacctatcta taccacatca gcttcaaaaa ctatcagata ttgtgaaaaa
 300
 tgtcagctga ttaaacctga tcgggcgcac cactgctcag cctgtgactc atgtattctt
 360
 aagatggatc atccctgtcc ttgggtgaat aactgtgtgg gatTTTctaa ttacaaattc
 420
 ttctgtctgt ttttattgta ttccctatta tattgccttt tcgtggccgc acagttttag
 480
 agtacttaaa aaattttgga cgaaagaacc gacaaaaacc cgggccaaaa ttccacgtac
 540
 ttttttcttt tctttgtgtc tgcaatgttc ttcacagcg tcctctcact ttcagctac
 600
 cactgctggc tttaaacagc attgtccaca gtcctgtctg cagggtcagg gcatggcctc
 660
 tctccgtgtt cctgtgaaga gccttcattg gaatcatccc gggacatata gcttgaatgt
 720
 gctgtctggc tagccctcc acaagtcggt cactctgcac aaggaatccg agagctcatc
 780
 aaggatcagc acggtctggg gccaggtgg ggtggaacac gcacggtcca caagcaattc
 840
 tgtctttctc aaggcttttt cttgtgcagt atgaaatcct tcatatttca tatgaagtat
 900
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 960
 cttcaaggct gcccc
 975

<210> 3234

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3234

Xaa Ala Tyr Val Val Glu Leu Cys Val Phe Thr Ile Phe Gly Asn Glu
 1 5 10 15
 Glu Asn Gly Lys Thr Val Val Tyr Leu Val Ala Phe His Leu Phe Phe
 20 25 30
 Val Met Phe Val Trp Ser Tyr Trp Met Thr Ile Phe Thr Ser Pro Ala
 35 40 45
 Ser Pro Ser Lys Glu Phe Tyr Leu Ser Asn Ser Glu Lys Glu Arg Tyr
 50 55 60
 Glu Lys Glu Phe Ser Gln Glu Arg Gln Gln Glu Ile Leu Arg Arg Ala
 65 70 75 80
 Ala Arg Ala Leu Pro Ile Tyr Thr Thr Ser Ala Ser Lys Thr Ile Arg

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<210> 3235
<211> 551
<212> DNA
<213> Homo sapiens
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<210> 3236
<211> 183
<212> PRT
<213> Homo sapiens
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2439

	85		90		95
Lys Glu Lys Asn Glu Ile Ile Ala Arg Leu Glu Glu Lys Thr Asn Lys					
	100		105		110
Ile Thr Ala Ala Met Arg Gln Leu Glu Gln Arg Leu Gln Gln Ala Glu					
	115		120		125
Lys Ala Gln Met Glu Ala Glu Asp Glu Asp Glu Lys Tyr Leu Gln Glu					
	130		135		140
Cys Leu Ser Lys Ser Asp Ser Leu Gln Lys Gln Ile Ser Gln Lys Glu					
145		150		155	160
Lys Gln Leu Val Gln Leu Glu Thr Asp Leu Lys Ile Glu Lys Glu Trp					
	165		170		175
Arg Gln Thr Leu Gln Glu Asp					
	180				

<210> 3237

<211> 1323

<212> DNA

<213> Homo sapiens

<400> 3237

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nctctgggct ggcacctacc tcgcagaggg gtttgcacta aggcgctggg cgccgggctc
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cgggcgctgt ggaccatggc tccgcccgcg gcgcctggcc gggaccgtgt gggccgtgag
120
gatgaggacc gttgggaagt acggggggac cgcaaggccc ggaagcccct ggtggagaag
180
aagcgacgcg cgccgatcaa cgagagtctt caggagtgcg ggctgctgct ggcggggcgcc
240
gaggtgcagg ccaagctgga gaacccgaa gtgctggagc tgacggtgcg gcgggtccag
300
ggtgtgctgc ggggcccggc gcgcgagcgc gagcagctgc aggcggaagc gagcgagcgc
360
ttcgctgccg gctacatcca gtgcatgcac gaggtgcaca cgttcgctgc cacgtgccag
420
gccatcgacg ctaccgtcgc tgccgagctc ctgaaccatc tgctcgagtc catgccgctg
480
cgtgagggca gcagcttcca ggatctgctg ggggacgccc tggcggggcc acctagagcc
540
cctggacgga gtggctggcc tgccgggggc gctccgggat cccaataacc cagccccccg
600
ggtcctgggg acgacctgtg ctccgacctg gaggaggccc ctgaggctga actgagtcag
660
gctcctgctg aggggcccga cttggtgccc gcagccctgg gcagcctgac cacagcccaa
720
attgcccgga gtgtctggag gccttggtga ccaatgccag ccagagtcct gcgggggtgg
780
gccgggccct ccctggatct cctccctcct cccaggggtt cagatgtggt ggggtagggc
840
cctggaagtc tcccaggtct tccctccctc ctctgatgga tggcttgagc ggcagcccct
900
ggtaaccagc ccagtcaggc cccagccccg tttcttaaga aacttttagg gaccctgcag
960
ctctggagtg ggtggaggga gggagctacg ggcaggagga agaattttgt agagctgcca
1020

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gcgctctccc aggttcaccc acccaggctt caccagccct gtgcgggctc tgggggcaga
 1080
 ggtggcagaa atggtgctgg gcactagtgt tccaggcagc cctgggctaa acaaaagctt
 1140
 gaacttgcca cttcagcggg gagatgagag gcagggtgcac tcagctgcac tgcccagagc
 1200
 tgtgatgctc tgtacatctt gttttagca cacttgagtt tgtgtattcc attgacatca
 1260
 aatgtgacaa ttttactaaa taaagaattt tggagttagt tacccttgaa aaaaaagtcg
 1320
 acg
 1323

<210> 3238

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3238

Xaa	Leu	Gly	Cys	Asp	Leu	Pro	Arg	Arg	Gly	Val	Cys	Thr	Lys	Ala	Leu
1			5						10					15	
Gly	Ala	Gly	Leu	Arg	Ala	Leu	Trp	Thr	Met	Ala	Pro	Pro	Ala	Ala	Pro
			20						25				30		
Gly	Arg	Asp	Arg	Val	Gly	Arg	Glu	Asp	Glu	Asp	Arg	Trp	Glu	Val	Arg
			35					40				45			
Gly	Asp	Arg	Lys	Ala	Arg	Lys	Pro	Leu	Val	Glu	Lys	Lys	Arg	Arg	Ala
	50					55					60				
Arg	Ile	Asn	Glu	Ser	Leu	Gln	Glu	Leu	Arg	Leu	Leu	Leu	Ala	Gly	Ala
65					70					75				80	
Glu	Val	Gln	Ala	Lys	Leu	Glu	Asn	Ala	Glu	Val	Leu	Glu	Leu	Thr	Val
			85						90					95	
Arg	Arg	Val	Gln	Gly	Val	Leu	Arg	Gly	Arg	Ala	Arg	Glu	Arg	Glu	Gln
			100					105					110		
Leu	Gln	Ala	Glu	Ala	Ser	Glu	Arg	Phe	Ala	Ala	Gly	Tyr	Ile	Gln	Cys
		115					120					125			
Met	His	Glu	Val	His	Thr	Phe	Val	Ser	Thr	Cys	Gln	Ala	Ile	Asp	Ala
	130					135					140				
Thr	Val	Ala	Ala	Glu	Leu	Leu	Asn	His	Leu	Leu	Glu	Ser	Met	Pro	Leu
145					150					155				160	
Arg	Glu	Gly	Ser	Ser	Phe	Gln	Asp	Leu	Leu	Gly	Asp	Ala	Leu	Ala	Gly
			165						170					175	
Pro	Pro	Arg	Ala	Pro	Gly	Arg	Ser	Gly	Trp	Pro	Ala	Gly	Gly	Ala	Pro
			180					185					190		
Gly	Ser	Pro	Ile	Pro	Ser	Pro	Pro	Gly	Pro	Gly	Asp	Asp	Leu	Cys	Ser
		195				200					205				
Asp	Leu	Glu	Glu	Ala	Pro	Glu	Ala	Glu	Leu	Ser	Gln	Ala	Pro	Ala	Glu
	210					215					220				
Gly	Pro	Asp	Leu	Val	Pro	Ala	Ala	Leu	Gly	Ser	Leu	Thr	Thr	Ala	Gln
225					230					235				240	
Ile	Ala	Arg	Ser	Val	Trp	Arg	Pro	Trp							
					245										

<210> 3239

<211> 432

<212> DNA

<213> Homo sapiens

<400> 3239

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aaaaccaaag attctcctgg agttttctct aaactgggtg ttctcctgag gagagtgaca
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agaaacttgg tgagaaataa gctggcagtg attacgcgtc tccttcagaa tctgatcatg
120
ggtttgttcc tccttttctt cgttctgcgg gtccgaagca atgtgctaaa ggggtgctatc
180
caggaccgcg taggtctcct ttaccagttt gtgggcgcca ccccgtaac accgatgctg
240
aacgctgtga atctgtttcc cgtgctgcga gctgtcagcg accaggagag tcaggacggc
300
ctctaccaga agtggcagat gatgctggcc tatgcactgc acgtcctccc cttcagcggt
360
gttgccacca tgattttcag cagtgtgtgc tactggacgc tgggcttaca tcctgaggtt
420
gcccgattgg gt
432

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<210> 3240

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3240

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Lys Thr Lys Asp Ser Pro Gly Val Phe Ser Lys Leu Gly Val Leu Leu
1      5      10      15
Arg Arg Val Thr Arg Asn Leu Val Arg Asn Lys Leu Ala Val Ile Thr
20     25     30
Arg Leu Leu Gln Asn Leu Ile Met Gly Leu Phe Leu Leu Phe Phe Val
35     40     45
Leu Arg Val Arg Ser Asn Val Leu Lys Gly Ala Ile Gln Asp Arg Val
50     55     60
Gly Leu Leu Tyr Gln Phe Val Gly Ala Thr Pro Tyr Thr Gly Met Leu
65     70     75     80
Asn Ala Val Asn Leu Phe Pro Val Leu Arg Ala Val Ser Asp Gln Glu
85     90     95
Ser Gln Asp Gly Leu Tyr Gln Lys Trp Gln Met Met Leu Ala Tyr Ala
100    105    110
Leu His Val Leu Pro Phe Ser Val Val Ala Thr Met Ile Phe Ser Ser
115    120    125
Val Cys Tyr Trp Thr Leu Gly Leu His Pro Glu Val Ala Arg Leu Gly
130    135    140

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<210> 3241

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3241

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gtggaatttt tttagacaaa gtctcaaaaa acaacaaac aaacaaaagg taagataaat
60

```

acgaaataca aaataagagg caggaagagc ccaaagcatc agaaatgtgc cagttataat
 120
 gggccaaaat cccctcttgt gtctccagaa gtatttgaaa aatacgttag gatctgcctc
 180
 acagacatgc tcccaggaca ctcgacagca aggaggtacg gcgggcccag ccagccaagg
 240
 cagaggagga catcactgcc acagcagggg gcctgactgg cagcaaaagg gacgactccg
 300
 gcgaaaagtc agcaggaaac aggacagggg ctggaccaat ggcctccctc agccccacac
 360
 cccacccagg caggagcggg gcctggcccg gggcagggcg gtgggagagc tactgagtg
 420
 ggcagcaggg catggccctt gatgctgcag gtacccaggg tgcagctgca gaaacctcag
 480
 tgggaaccca gg
 492

<210> 3242
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 3242
 Met Gly Gln Asn Pro Leu Leu Cys Leu Gln Lys Tyr Leu Lys Asn Thr
 1 5 10 15
 Leu Gly Ser Ala Ser Gln Thr Cys Ser Gln Asp Thr Arg Gln Gln Gly
 20 25 30
 Gly Thr Ala Gly Pro Ala Ser Gln Gly Arg Gly Gly His His Cys His
 35 40 45
 Ser Arg Gly Pro Asp Trp Gln Gln Lys Gly Arg Leu Arg Arg Lys Val
 50 55 60
 Ser Arg Lys Gln Asp Arg Gly Trp Thr Asn Gly Leu Pro Gln Pro His
 65 70 75 80
 Thr Pro Pro Arg Gln Glu Arg Cys Leu Ala Arg Gly Arg Arg Val Gly
 85 90 95
 Glu Leu Thr Glu Trp Ala Ala Gly His Gly Pro
 100 105

<210> 3243
 <211> 944
 <212> DNA
 <213> Homo sapiens

<400> 3243
 gatctgcatt ttcaagttag caaagaccgc tatggagggc agccactttt ctcagagaag
 60
 ttccccaccc ttgtgtctgg ggcaaggagt acttacggag tgacaaaggg aaaagtctgc
 120
 tttagggcaa aggtaaccca gaatctccca atgaaagaag gctgcacaga ggtctctctc
 180
 cttcgagttg ggtgtctgt tgatttttcc cgtccacagc ttggtgaaga tgaattctct
 240
 tacggtttcg atggacgagg actcaaggca gaaaatggac aatttgagga atttggccag
 300

acttttgggg agaatgatgt tattggctgc ttgctaatt ttgagactga agaagtagaa
 360
 ctttccttct ccaagaatgg agaagaccta ggtgtggcat tctggatcag caaggattcc
 420
 ctggcagacc gggcccttct accccatgtc ctctgcaaaa attgtgttgt agaattaaac
 480
 ttcggtcaga aggaggagcc cttcttccca ccaccagaag agtttgtgtt cattcatgct
 540
 gtgcctgttg aggagcgtgt acgcactgca gtccttccca agaccataga ggaatgtgag
 600
 gtgattctga tgggtgggact acccggtatct ggaaagaccc agtgggcact gaaatatgca
 660
 aaagaaaacc ctgagaaaag atacaatgtc ctgggagctg agactgtgct caatcaaatg
 720
 aggatgaagg gtctcgagga gccagagatg gacccccaaa gccgagacct tttagttcag
 780
 caagcctccc agtgccttag taagctgggc cagattgctt cccggacaaa gaggaacttt
 840
 attcttgatc agtgtaatgt gtacaattct ggccaacggc ggaagctatt gctgttcaag
 900
 accttctctc ggaaagtggg ggtggttgtc cctaattgagg aaga
 944

<210> 3244

<211> 314

<212> PRT

<213> Homo sapiens

<400> 3244

Asp	Leu	His	Phe	Gln	Val	Ser	Lys	Asp	Arg	Tyr	Gly	Gly	Gln	Pro	Leu
1				5					10					15	
Phe	Ser	Glu	Lys	Phe	Pro	Thr	Leu	Trp	Ser	Gly	Ala	Arg	Ser	Thr	Tyr
			20					25					30		
Gly	Val	Thr	Lys	Gly	Lys	Val	Cys	Phe	Glu	Ala	Lys	Val	Thr	Gln	Asn
		35					40					45			
Leu	Pro	Met	Lys	Glu	Gly	Cys	Thr	Glu	Val	Ser	Leu	Leu	Arg	Val	Gly
	50					55				60					
Trp	Ser	Val	Asp	Phe	Ser	Arg	Pro	Gln	Leu	Gly	Glu	Asp	Glu	Phe	Ser
65					70					75				80	
Tyr	Gly	Phe	Asp	Gly	Arg	Gly	Leu	Lys	Ala	Glu	Asn	Gly	Gln	Phe	Glu
			85						90					95	
Glu	Phe	Gly	Gln	Thr	Phe	Gly	Glu	Asn	Asp	Val	Ile	Gly	Cys	Phe	Ala
			100					105					110		
Asn	Phe	Glu	Thr	Glu	Glu	Val	Glu	Leu	Ser	Phe	Ser	Lys	Asn	Gly	Glu
	115					120						125			
Asp	Leu	Gly	Val	Ala	Phe	Trp	Ile	Ser	Lys	Asp	Ser	Leu	Ala	Asp	Arg
	130					135					140				
Ala	Leu	Leu	Pro	His	Val	Leu	Cys	Lys	Asn	Cys	Val	Val	Glu	Leu	Asn
145				150					155					160	
Phe	Gly	Gln	Lys	Glu	Glu	Pro	Phe	Phe	Pro	Pro	Pro	Glu	Glu	Phe	Val
			165					170						175	
Phe	Ile	His	Ala	Val	Pro	Val	Glu	Glu	Arg	Val	Arg	Thr	Ala	Val	Pro
			180					185					190		
Pro	Lys	Thr	Ile	Glu	Glu	Cys	Glu	Val	Ile	Leu	Met	Val	Gly	Leu	Pro

195	200	205
Gly Ser Gly Lys Thr Gln Trp Ala Leu Lys Tyr Ala Lys Glu Asn Pro		
210	215	220
Glu Lys Arg Tyr Asn Val Leu Gly Ala Glu Thr Val Leu Asn Gln Met		
225	230	235
Arg Met Lys Gly Leu Glu Glu Pro Glu Met Asp Pro Lys Ser Arg Asp		
245	250	255
Leu Leu Val Gln Gln Ala Ser Gln Cys Leu Ser Lys Leu Val Gln Ile		
260	265	270
Ala Ser Arg Thr Lys Arg Asn Phe Ile Leu Asp Gln Cys Asn Val Tyr		
275	280	285
Asn Ser Gly Gln Arg Arg Lys Leu Leu Leu Phe Lys Thr Phe Ser Arg		
290	295	300
Lys Val Val Val Val Val Pro Asn Glu Glu		
305	310	

<210> 3245

<211> 980

<212> DNA

<213> Homo sapiens

<400> 3245

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ctcagctgga tgaggatggg gatttgacg tggtgagaag accacgagcc gcctctgatt
120
ccaacccagc agggcctctg agagacaagg tacatcccat gattctagca caggaagaag
180
acgagctcct gggagaggaa gcacaaggca gcccgcacga tatcatcaga ataggtgtgg
240
cggggcgccc tgctcctggc agactacatc ctgttccgac aggacctctt ccgaggatgt
300
acagcgctgg agctcggggc cggcacgggg ctgcgtagca tcatcgagc caccatggca
360
cggaccgttt attgtacaga tgtcggtgca gatcttttgt ccatgtgcca gcgaaacatt
420
gccctcaaca gccacctggc tgccactgga ggtggtatag ttagggtaa agaactggac
480
tggctgaagg acgacctctg cacagatccc aaggctccct tcagttggtc acaagaggaa
540
atttctgacc tgtacgatca caccaccatc ctgtttgcag ccgaagtgtt ttacgacgac
600
gacttgactg atgctgtgtt taaaacgctc tcccgactcg cccacagatt gaaaaatgcc
660
tgcacagcca tactgtcggg ggagaagagg ctcaacttca cactgagaca cttggacgtc
720
acatgtgaag cctacgatca ctccgctcc tgcccgacg cgctggagca gctcacagat
780
ggcaagctgc gcttcgtggt ggagcccgtg gaggcctcct tcccacagct cctggtttac
840
gagcgctcc agcagctgga gctctggaag atcatcgag aaccagtaac atgacccatc
900
gcctccacca ggcgggcggt ctgcactgtt cttagagtgt atttctagta aaatcagaag
960

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ctcaccaaag caaaaaaaaaa
980

<210> 3246

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3246

Val	Trp	Arg	Gly	Ala	Leu	Leu	Leu	Ala	Asp	Tyr	Ile	Leu	Phe	Arg	Gln
1				5					10					15	
Asp	Leu	Phe	Arg	Gly	Cys	Thr	Ala	Leu	Glu	Leu	Gly	Ala	Gly	Thr	Gly
			20					25					30		
Leu	Ala	Ser	Ile	Ile	Ala	Ala	Thr	Met	Ala	Arg	Thr	Val	Tyr	Cys	Thr
		35					40					45			
Asp	Val	Gly	Ala	Asp	Leu	Leu	Ser	Met	Cys	Gln	Arg	Asn	Ile	Ala	Leu
50						55				60					
Asn	Ser	His	Leu	Ala	Ala	Thr	Gly	Gly	Gly	Ile	Val	Arg	Val	Lys	Glu
65					70					75					80
Leu	Asp	Trp	Leu	Lys	Asp	Asp	Leu	Cys	Thr	Asp	Pro	Lys	Val	Pro	Phe
				85					90					95	
Ser	Trp	Ser	Gln	Glu	Glu	Ile	Ser	Asp	Leu	Tyr	Asp	His	Thr	Thr	Ile
			100					105					110		
Leu	Phe	Ala	Ala	Glu	Val	Phe	Tyr	Asp	Asp	Asp	Leu	Thr	Asp	Ala	Val
		115					120					125			
Phe	Lys	Thr	Leu	Ser	Arg	Leu	Ala	His	Arg	Leu	Lys	Asn	Ala	Cys	Thr
130						135					140				
Ala	Ile	Leu	Ser	Val	Glu	Lys	Arg	Leu	Asn	Phe	Thr	Leu	Arg	His	Leu
145					150					155					160
Asp	Val	Thr	Cys	Glu	Ala	Tyr	Asp	His	Phe	Arg	Ser	Cys	Leu	His	Ala
				165					170					175	
Leu	Glu	Gln	Leu	Thr	Asp	Gly	Lys	Leu	Arg	Phe	Val	Val	Glu	Pro	Val
			180					185					190		
Glu	Ala	Ser	Phe	Pro	Gln	Leu	Leu	Val	Tyr	Glu	Arg	Leu	Gln	Gln	Leu
		195					200						205		
Glu	Leu	Trp	Lys	Ile	Ile	Ala	Glu	Pro	Val	Thr					
		210				215									

<210> 3247

<211> 977

<212> DNA

<213> Homo sapiens

<400> 3247

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cgcaacatcg tggccaaccg cctggcctcg gatggggcca cctgggcaga catcttcaag
120
aggttcaaca gcggcacgta taacaaccag tggatgatcg tggactacaa ggcgttcac
180
ccgggtgggc ccagccccgg gagccgggtg cttaccatcc tggagcagat ccccggcacg
240
gtggtggtgg ctgacaagac ctgaggagctc taccagaaga cctactgggc cagctacaac
300

ataccgtcct tcgagactgt gttcaatgcc agtgggctgc aggccctagt ggcccagtat
 360
 ggggactggt tttcttatga cgggagcccc cgggcccaga tcttcggcg gaaccagtca
 420
 ctggtacaag acatggactc catggtcagg ctgatgaggt acaatgactt cctccatgac
 480
 cctctgtcac tgtgcaaagc ctgcaacccc cagcccaatg gggagaatgc tatctccgcc
 540
 cgctccgacc tcaacccggc caatggctcc tacccttcc aggccctacg tcagcgctcc
 600
 catgggggta tcgatgtgaa ggtgaccagc atgtcactgg ccaggatcct gagcctgctg
 660
 gcggccagcg gtcccacgtg ggaccagggtg cccccgttcc agtggagcac ctgcgccctc
 720
 agcggcctgc tgcacatggg ccagccagac ctctggaagt tcgcgctgt caaggtttca
 780
 tgggactgaa gttctgtccc tgctctgctg ctttcgcccc tgctgaccct cgtcagggtc
 840
 acccccgctc caaggccacc ggacttctaa ctccagcccc tectgggggc ttcgttctct
 900
 gatctggggt ctgagtcac tcctcctaga gtgggtcacg aacctgatgg ggctcagaac
 960
 tgacccctc tctcccc
 977

<210> 3248

<211> 260

<212> PRT

<213> Homo sapiens

<400> 3248

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 420
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 480
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 540
 ttgcggcgtg accctggagt atttgtgctt cctgtagggc tgatagtcga ccatgtggga
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 660
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<210> 3254
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 3254
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 20 25 30
 Tyr Ser Arg Val Thr Pro Gln Glu Gln Ala Lys Leu Asp Ala Gln Leu
 35 40 45
 Arg Asp Lys Glu Phe Tyr Arg Pro Ile Pro Asn Pro Asn Pro Lys Leu
 50 55 60
 Thr Asp Gly Tyr Pro Ala Phe Lys Arg Pro His Met Thr Ala Lys Asp
 65 70 75 80
 Leu Gly Leu Pro Gly Phe Phe Pro Ser Gln Glu His Glu Ala Thr Arg
 85 90 95
 Glu Asp Glu Arg Lys Phe Thr Ser Thr Cys His Phe Thr Tyr Pro Ala
 100 105 110
 Ser His Asp Leu His Leu Ala Gln Gly Asp Pro Asn Gln Val Leu Gln
 115 120 125
 Ser Ala Asp Phe Pro Cys Leu Val Asp Pro Lys His Gln Pro Ala Ala
 130 135 140
 Glu Met Ala Lys Gly Tyr Leu Leu Leu Pro Gly Cys Pro Cys Leu His
 145 150 155 160
 Cys His Ile Val Lys Val Pro Ile Leu Asn Arg Trp Gly Pro Leu Met
 165 170 175
 Pro Phe Tyr Gln
 180

<210> 3255
 <211> 724
 <212> DNA
 <213> Homo sapiens

<400> 3255

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 120
 ggactcatgt cgaggtcggg gaaggatgta aaacccggac ggacatcact gtaggccgca
 180
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 240
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 300
 gaatatgagg ggggtcggaa tgaggcagggc gaaaggcacg gacgtgggag ggcacggcta
 360
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 420
 tacaaattta aaaatggtgc tcgatataatc ggagaatatg ttagaaataa aaagcacggg
 480
 caaggcactt ttatatatcc agatggatcc agatatgaag gagagtgggc aaatgacctg
 540
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 660
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 720
 tacc
 724

<210> 3256

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3256

Ser Cys Leu Gln Thr Arg Glu Glu Ile Leu Ala Asp Thr Ser Gln Leu
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 Ala Ala Asn Pro Glu Gly Ser Ala Glu Pro Arg Lys Glu Tyr Glu Gly
 20 25 30
 Gly Arg Asn Glu Ala Gly Glu Arg His Gly Arg Gly Arg Ala Arg Leu
 35 40 45
 Pro Asn Gly Asp Thr Tyr Glu Gly Ser Tyr Glu Phe Gly Lys Arg His
 50 55 60
 Gly Gln Gly Ile Tyr Lys Phe Lys Asn Gly Ala Arg Tyr Ile Gly Glu
 65 70 75 80
 Tyr Val Arg Asn Lys Lys His Gly Gln Gly Thr Phe Ile Tyr Pro Asp
 85 90 95
 Gly Ser Arg Tyr Glu Gly Glu Trp Ala Asn Asp Leu Arg His Gly His
 100 105 110
 Gly Val Tyr Tyr Tyr Ile Asn Asn Asp Thr Tyr Thr Gly Glu Trp Phe
 115 120 125
 Ala His Gln Arg His Gly Gln Gly Thr Tyr Leu Tyr Ala Glu Thr Gly
 130 135 140
 Ser Lys Tyr Val Gly Thr Trp Val Asn Gly Gln Gln Glu Gly Thr Ala
 145 150 155 160
 Glu Leu Ile His Leu Asn His Arg Tyr

165

<210> 3257

<211> 368

<212> DNA

<213> Homo sapiens

<400> 3257

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120
agtgaagaca tcagccagac ctccaagtac agtcccatct actcgccaga cccctactat
180
gcttcggagt ctgagtactg gacctaccat ggggtcccca aagtgccccg agccagaagg
240
ttctcgtctg gaggagagga ggatgatttt gaccgcagca tgcacaagct ccaaagtgga
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368

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<210> 3258

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3258

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Pro Thr Phe Ser Arg Ser Pro His His Tyr Tyr Arg Ser Gly Asp Leu
      20             25             30
Ser Thr Ala Thr Lys Ser Glu Thr Ser Glu Asp Ile Ser Gln Thr Ser
      35             40             45
Lys Tyr Ser Pro Ile Tyr Ser Pro Asp Pro Tyr Tyr Ala Ser Glu Ser
      50             55             60
Glu Tyr Trp Thr Tyr His Gly Ser Pro Lys Val Pro Arg Ala Arg Arg
      65             70             75             80
Phe Ser Ser Gly Gly Glu Glu Asp Asp Phe Asp Arg Ser Met His Lys
      85             90             95
Leu Gln Ser Gly Ile Gly Arg Leu Ile Leu Lys Glu Glu Met Lys Ala
      100            105            110
Arg Ser Ser Ser Tyr Ala Asp Pro Trp Arg
      115            120

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<210> 3259

<211> 747

<212> DNA

<213> Homo sapiens

<400> 3259

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acgcgtgaag ggcgcacctc ctgctgcagc actggccacc ccggacacgc tgcagggcca
60

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gtgtcagcc ttcgtacagc tctgggccc cctgcagccc atcttgtgtg gcaacaaccg
 120
 caccattgaa cccggagcgc tgcggcgggg caacatgagc tccctgggct ttacgagcaa
 180
 ggagcagcgg aacctgggccc ttctcgtgca cctcatgacc agcaacccca aaatcctgta
 240
 cgcgcctgcg ggctctgagg tgcaccgct catcctcaag gccaacgaga cttttgcttt
 300
 tgtgggcaac gtgactcact atgcccaggt ctggctcaac atctcggcgg agatccgcag
 360
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 420
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 480
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 600
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 720
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 747

<210> 3260

<211> 197

<212> PRT

<213> Homo sapiens

<400> 3260

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Leu	Val	His	Leu	Met	Thr	Ser	Asn	Pro	Lys	Ile	Leu	Tyr	Ala	Pro	Ala
			20					25					30		
Gly	Ser	Glu	Val	Asp	Arg	Val	Ile	Leu	Lys	Ala	Asn	Glu	Thr	Phe	Ala
		35				40					45				
Phe	Val	Gly	Asn	Val	Thr	His	Tyr	Ala	Gln	Val	Trp	Leu	Asn	Ile	Ser
	50				55					60					
Ala	Glu	Ile	Arg	Ser	Phe	Leu	Glu	Gln	Gly	Arg	Leu	Gln	Gln	His	Leu
65					70				75					80	
Arg	Trp	Leu	Gln	Gln	Tyr	Val	Ala	Glu	Leu	Arg	Leu	His	Pro	Glu	Ala
			85					90					95		
Leu	Asn	Leu	Ser	Leu	Asp	Glu	Leu	Pro	Pro	Ala	Leu	Arg	Gln	Asp	Asn
			100					105					110		
Phe	Ser	Leu	Pro	Ser	Gly	Met	Ala	Leu	Leu	Gln	Gln	Leu	Asp	Thr	Ile
		115				120						125			
Asp	Asn	Ala	Ala	Cys	Gly	Trp	Ile	Gln	Phe	Met	Ser	Lys	Val	Ser	Val
	130				135						140				
Asp	Ile	Phe	Lys	Gly	Phe	Pro	Asp	Glu	Glu	Ser	Ile	Val	Asn	Tyr	Thr
145				150					155					160	
Leu	Asn	Gln	Ala	Tyr	Gln	Asp	Asn	Val	Thr	Val	Phe	Ala	Ser	Val	Ile
			165					170					175		
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180
Ser Ala Arg Thr Pro
195

185

190

<210> 3261

<211> 1323

<212> DNA

<213> Homo sapiens

<400> 3261

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120
tgctgtgcca attgtgtttt tttgctctgt gtacattttg gttttatttg ggggtgctgt
180
tgatgatttc ctttgttccg gtgttctgtc tcccctcgct ggctgtgtgg gggctgcctg
240
gcccgctgct tgccgcctcc atagatcccc gttgcgcagc catctgtcat ggacgacatt
300
gaggtgtggc tcaggaccga cctgaagggt gatgatctgg aggaggggtg cacaagtga
360
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420
tcgcccccca tggaggctcc tgccccagcc tcaaaccctt ctggccggaa gaagccagag
480
cggtcagagg atgccctott cgccctgtga gcagctctgt ggtttgcctc cccagatggc
540
gggtccccgc ttgcaccccg tggacaccgg gcactggcca ctctacatc cccagctcca
600
cacggcctgc acacctgtgt ttccatggaa atgccaccgt gtctgctccc aggcctccca
660
ctagtcagga ccagcttcag ccacttcttt tctctgagtg gtgggacaac tgcagccaga
720
gactctctcc cctcccacca tgggcccctc tgcccatgtt tcctcccagg aagagcgggc
780
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840
cccgcccatg gagaaagagc acgcccggcc ccgccctgtg ctcacctctg cctggctcag
900
tgaccttctc aggcattctg ccctcctggg cccctctctc cctgaagggg ctttgtggca
960
tctctggaag agcaggggtg gctgcactca tgggcctggg ctactcctt ggacttgtca
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1140
gctggctcag cagccgagcc tggcaccgag ggtccctgca ggctccctgg gcagggagag
1200
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1260
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1320

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1323

<210> 3262
<211> 81
<212> PRT
<213> Homo sapiens

<400> 3262
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Arg Thr Asp Leu Lys Gly Asp Asp Leu Glu Glu Gly Val Thr Ser Glu
20 25 30
Glu Phe Asp Lys Phe Leu Glu Glu Arg Ala Lys Ala Ala Glu Met Val
35 40 45
Pro Asp Leu Pro Ser Pro Pro Met Glu Ala Pro Ala Pro Ala Ser Asn
50 55 60
Pro Ser Gly Arg Lys Lys Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala
65 70 75 80
Leu

<210> 3263
<211> 1128
<212> DNA
<213> Homo sapiens

<400> 3263
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cggggacgca agggccgggg cgggggtccc cgtcctcct ctgactccga gcccagggcc
120
gagctggaga gagaggccaa gaaatcagcg aagaagccgc agtcctcaag cacagagccc
180
gccaggaaac ctggccagaa ggagaagaga gtgcggcccc aggagaagca acaagccaag
240
cccgtgaagg tggagcggac ccggaagcgg tccgagggt tctcgatgga caggaaggta
300
gagaagaaga aagagccctc cgtggaggag aagctgcaga agctgcacag tgagatcaag
360
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420
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540
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600
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660
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720
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780

gactcggagg aggggccaag gtgtggctcc tctgaagacc tgcacgacag cgtacgggag
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 900
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 960
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 1020
 cgctgtgctg tttgtatttg ttcccttggg ttttttttct ctgcctaatt tctgtgattt
 1080
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 1128

<210> 3264

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3264

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Pro	Val	Lys	Lys	Arg	Gly	Arg	Lys	Gly	Arg	Gly	Arg	Gly	Pro	Pro	Ser
			20					25					30		
Ser	Ser	Asp	Ser	Glu	Pro	Glu	Ala	Glu	Leu	Glu	Arg	Glu	Ala	Lys	Lys
		35					40					45			
Ser	Ala	Lys	Lys	Pro	Gln	Ser	Ser	Ser	Thr	Glu	Pro	Ala	Arg	Lys	Pro
	50					55					60				
Gly	Gln	Lys	Glu	Lys	Arg	Val	Arg	Pro	Glu	Glu	Lys	Gln	Gln	Ala	Lys
65					70					75					80
Pro	Val	Lys	Val	Glu	Arg	Thr	Arg	Lys	Arg	Ser	Glu	Gly	Phe	Ser	Met
				85					90					95	
Asp	Arg	Lys	Val	Glu	Lys	Lys	Lys	Glu	Pro	Ser	Val	Glu	Glu	Lys	Leu
			100					105					110		
Gln	Lys	Leu	His	Ser	Glu	Ile	Lys	Phe	Ala	Leu	Lys	Val	Asp	Ser	Pro
		115					120					125			
Asp	Val	Lys	Gly	Cys	Leu	Asn	Ala	Leu	Glu	Glu	Leu	Gly	Thr	Leu	Gln
	130					135					140				
Val	Thr	Ser	Gln	Ile	Leu	Gln	Lys	Asn	Thr	Asp	Val	Val	Ala	Thr	Leu
145					150					155					160
Lys	Lys	Ile	Arg	Arg	Tyr	Lys	Ala	Asn	Lys	Asp	Val	Met	Glu	Lys	Ala
			165						170					175	
Ala	Glu	Val	Tyr	Thr	Arg	Leu	Lys	Ser	Arg	Val	Leu	Gly	Pro	Lys	Ile
			180					185					190		
Glu	Ala	Val	Gln	Lys	Val	Asn	Lys	Ala	Gly	Met	Glu	Lys	Glu	Lys	Ala
		195					200					205			
Glu	Glu	Lys	Leu	Ala	Gly	Glu	Glu	Leu	Ala	Gly	Glu	Glu	Ala	Pro	Gln
	210					215					220				
Glu	Lys	Ala	Glu	Asp	Lys	Pro	Ser	Thr	Asp	Leu	Ser	Ala	Pro	Val	Asn
225					230					235					240
Gly	Glu	Ala	Thr	Ser	Gln	Lys	Gly	Glu	Ser	Ala	Glu	Asp	Lys	Glu	His
			245						250					255	
Glu	Glu	Gly	Arg	Asp	Ser	Glu	Glu	Gly	Pro	Arg	Cys	Gly	Ser	Ser	Glu
			260					265					270		
Asp	Leu	His	Asp	Ser	Val	Arg	Glu	Gly	Pro	Asp	Leu	Asp	Arg	Pro	Gly

275 280 285
 Ser Asp Arg Gln Glu Arg Glu Arg Ala Arg Gly Asp Ser Glu Ala Leu
 290 295 300
 Asp Glu Glu Ser
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<210> 3265
 <211> 524
 <212> DNA
 <213> Homo sapiens

<400> 3265
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 120
 gagaaagtat aacttcattt tagaaattct cacctaaggc atttgaaaaa taatccaaaa
 180
 ggtacattat tgttgatttt tcttccttct agaaaggatc ttgttcgagt agaagccaca
 240
 gtcatgtgaa agacagaatc atggccaaga atcattatga gattcaggaa aaggaaaaac
 300
 ttcaagaaga aaagaagtaa gttagagaaa gtaccgctgg gccctgttgc acggtgctgg
 360
 ttgcccaggc gcatgcggaac ggagggtgtg gggcacgtgg gtctcgggac aggaagccca
 420
 ggcaggtctc aacctggctg ccactgcccc cttgccaccc tcatcctaga gggagcacc
 480
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 524

<210> 3266
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 3266
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 Glu Lys Val Pro Leu Gly Pro Val Ala Arg Cys Trp Leu Pro Arg Arg
 20 25 30
 Met Arg Thr Glu Gly Val Gly His Val Gly Leu Gly Thr Gly Ser Pro
 35 40 45
 Gly Arg Ser Gln Pro Gly Cys His Cys Pro Leu Ala Thr Leu Ile Leu
 50 55 60
 Glu Gly Ala Pro Arg Gly Ser Ser Leu Ala Pro Leu Leu Leu His Ala
 65 70 75 80
 Pro Arg

<210> 3267
 <211> 393
 <212> DNA
 <213> Homo sapiens

<400> 3267

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120
cattgtggga agtttcaaga tgccttggag ccattgctca gctggttggc agataccgag
180
gagctcatag ccaatcagaa acctccatct gctgagtata aagtggtgaa agcacagatc
240
caagaacaga agttgctcca ggggctccta gatgatcgaa aggccacagt agacatgctt
300
caagcagaag gaggcagaat agcccagtca gcagagctgg ctgatagaga gaaaatcact
360
ggacagctgg agagtcttga aagtagatgg act
393

<210> 3268

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3268

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Ile	Asn	Ala	Arg	Trp	Asn	Thr	Leu	Asn	Lys	Lys	Val	Ala	Gln	Arg	Ile
			20				25					30			
Ala	Gln	Leu	Gln	Glu	Ala	Leu	Leu	His	Cys	Gly	Lys	Phe	Gln	Asp	Ala
		35				40					45				
Leu	Glu	Pro	Leu	Leu	Ser	Trp	Leu	Ala	Asp	Thr	Glu	Glu	Leu	Ile	Ala
		50				55				60					
Asn	Gln	Lys	Pro	Pro	Ser	Ala	Glu	Tyr	Lys	Val	Val	Lys	Ala	Gln	Ile
65					70				75				80		
Gln	Glu	Gln	Lys	Leu	Gln	Arg	Leu	Leu	Asp	Asp	Arg	Lys	Ala	Thr	
			85					90				95			
Val	Asp	Met	Leu	Gln	Ala	Glu	Gly	Gly	Arg	Ile	Ala	Gln	Ser	Ala	Glu
			100					105				110			
Leu	Ala	Asp	Arg	Glu	Lys	Ile	Thr	Gly	Gln	Leu	Glu	Ser	Leu	Glu	Ser
		115					120					125			
Arg	Trp	Thr													
		130													

<210> 3269

<211> 1423

<212> DNA

<213> Homo sapiens

<400> 3269

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tttgaagctg taactttatg agcgattatt tactaccttt gagaaatgtg ttttagtata
120
aaatatagga tgtggaagcg aaaaaaatatc tgggtagcaa gtgaggtgta ctcaaaaata
180

agcaaaagtc acgtgggtct gattttatac cctcgctgga aagcttggtc tcagacacac
 240
 tgttactgca agtgtgtgtg agggggaaac tctcacacac tttgcagttg aggacagggc
 300
 tagactttga ggtggaccct ggctcccagg gctgtgtact cccagcccggt gtttctcttt
 360
 tgctcagact gaacaagtgg aacgaaatta cattaagaa aagaaggcag cagtgaagaa
 420
 atttgaagac aagaagggtg agctgaaaga gaacctgatt gctgagctag aagaaaagaa
 480
 gaaaatgatt gaaaacgaaa tgctgacaat ggaactgaat ggagattcta tggaggtgaa
 540
 acctatcatg accagaaagt tgcggaggcg accaaatgat cccgtcccca tcccagacaa
 600
 gaggaggaaa cctgctccag cccagctaaa ctatttgta acagatgaac agatcatgga
 660
 ggatctgaga acattaaata agcttaagtc acccaagaga ccagcatctc catcctctcc
 720
 tgagcacttg cctgcaacac ccgcggaatc tccagcacag agatttgagg cgcggataga
 780
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 840
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 900
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 1200
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 1260
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 1423

<210> 3270

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3270

Met	Ile	Glu	Asn	Glu	Met	Leu	Thr	Met	Glu	Leu	Asn	Gly	Asp	Ser	Met
1				5				10						15	
Glu	Val	Lys	Pro	Ile	Met	Thr	Arg	Lys	Leu	Arg	Arg	Arg	Pro	Asn	Asp
			20					25					30		
Pro	Val	Pro	Ile	Pro	Asp	Lys	Arg	Arg	Lys	Pro	Ala	Pro	Ala	Gln	Leu

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      35          40          45
Asn Tyr Leu Leu Thr Asp Glu Gln Ile Met Glu Asp Leu Arg Thr Leu
  50          55          60
Asn Lys Leu Lys Ser Pro Lys Arg Pro Ala Ser Pro Ser Ser Pro Glu
  65          70          75          80
His Leu Pro Ala Thr Pro Ala Glu Ser Pro Ala Gln Arg Phe Glu Ala
      85          90          95
Arg Ile Glu Asp Gly Lys Leu Tyr Tyr Asp Lys Arg Trp Tyr His Lys
      100          105          110
Ser Gln Ala Ile Tyr Leu Glu Ser Lys Asp Asn Gln Lys Leu Ser Cys
      115          120          125
Val Ile Ser Ser Val Gly Ala Asn Glu Ile Trp Val Arg Lys Thr Ser
      130          135          140
Asp Ser Thr Lys Met Arg Ile Tyr Leu Gly Gln Leu Gln Arg Gly Leu
  145          150          155          160
Phe Val Ile Arg Arg Arg Ser Ala Ala
      165

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<210> 3271
 <211> 464
 <212> DNA
 <213> Homo sapiens

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<400> 3271
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gaaggcactg gggatacagc cgagcacaag atggacagag atccctggcc cctcggagca
120
ggcagtctgt ggctctggcc cctccagttc cttgtcacca ggagataggc aatgcagctg
180
atgagaaggg ccccggcagc aagagatcca atgatggtgg ccgccaggat ccagcgcttg
240
gtgggcaggt gtgtactggg cagctcctta ttcttttcag ctacctggac ctcagtcttg
300
gccttcatag tccattcaga gttgatggta atggctactt ggtaggtgcc actgtctgta
360
ggctgggcgc ggcgcagcag catggaacca ttggggaagc ccacgatgtc tcgctgtccc
420
atggcactgc catccctctg aggccgttgt atccccaggg atgt
464

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<210> 3272
 <211> 140
 <212> PRT
 <213> Homo sapiens

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<400> 3272
Met Gly Gln Arg Asp Ile Val Gly Phe Pro Asn Gly Ser Met Leu Leu
  1          5          10          15
Arg Arg Ala Gln Pro Thr Asp Ser Gly Thr Tyr Gln Val Ala Ile Thr
      20          25          30
Ile Asn Ser Glu Trp Thr Met Lys Ala Lys Thr Glu Val Gln Val Ala
      35          40          45
Glu Lys Asn Lys Glu Leu Pro Ser Thr His Leu Pro Thr Asn Ala Gly

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```

      50              55              60
Ile Leu Ala Ala Thr Ile Ile Gly Ser Leu Ala Ala Gly Ala Leu Leu
65              70              75              80
Ile Ser Cys Ile Ala Tyr Leu Leu Val Thr Arg Asn Trp Arg Gly Gln
      85              90              95
Ser His Arg Leu Pro Ala Pro Arg Gly Gln Gly Ser Leu Ser Ile Leu
      100              105              110
Cys Ser Ala Val Ser Pro Val Pro Ser Val Thr Pro Ser Thr Trp Met
      115              120              125
Ala Thr Thr Glu Lys Pro Glu Leu Gly Pro Ala His
      130              135              140

```

<210> 3273
 <211> 387
 <212> DNA
 <213> Homo sapiens

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<400> 3273
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gttgtctata aagggcgacg gaagggaaca atcaattttg tagccattct ttgtactgat
120
aagtgcagaa ggcctgaaat aaccaactgg gtccgtctca cccgtgaaat aaaacacaag
180
aatattgtaa cttttcatga atggtatgaa acaagcaacc acctctggct agtgggtggaa
240
ctccgcacag gtggttcctt aaaaacagtt attgctcaag atgaaaacct cccagaagat
300
gttgtgagag aatttggaat tgacctgatt agtggattac atcatcttca taaacttggc
360
attctctttg tgacatttct cctagga
387

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<210> 3274
 <211> 129
 <212> PRT
 <213> Homo sapiens

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<400> 3274
Xaa Ala Pro Gly Met Glu Asn Phe Ile Leu Tyr Glu Glu Ile Gly Arg
1      5      10      15
Gly Ser Lys Thr Val Val Tyr Lys Gly Arg Arg Lys Gly Thr Ile Asn
      20      25      30
Phe Val Ala Ile Leu Cys Thr Asp Lys Cys Arg Arg Pro Glu Ile Thr
      35      40      45
Asn Trp Val Arg Leu Thr Arg Glu Ile Lys His Lys Asn Ile Val Thr
      50      55      60
Phe His Glu Trp Tyr Glu Thr Ser Asn His Leu Trp Leu Val Val Glu
      65      70      75      80
Leu Arg Thr Gly Gly Ser Leu Lys Thr Val Ile Ala Gln Asp Glu Asn
      85      90      95
Leu Pro Glu Asp Val Val Arg Glu Phe Gly Ile Asp Leu Ile Ser Gly
      100      105      110
Leu His His Leu His Lys Leu Gly Ile Leu Phe Val Thr Phe Leu Leu

```


115 120 125

Gly

<210> 3275
<211> 1266
<212> DNA
<213> Homo sapiens

<400> 3275
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60
agaacacatg aaaggaatac atggggaaga aataaagtag aaccaagag ttcttttaag
120
ttttctttta tagagacatg aataacagat acactgaagt ataaacaaaa attggcctga
180
agcgtccggt ggccggctta gttaggagct atggctaaac atcatcctga tttgatcttt
240
tgccgcaagc aggctggtgt tgccatcgga agactgtgtg aaaaatgtga tggcaagtgt
300
gtgatttggtg actcctatgt gctccctgc actctggtgc gcatatgtga tgagtgtaac
360
tatggatctt accaggggag ctgtgtgatc tgtggaggac ctggggtctc tgatgcctat
420
tattgtaagg agtgcacat ccaggagaag gacagagatg gctgccccaa gattgtcaat
480
ctggggagct ctaagacaga cctcttctat gaacgcaaaa aatacggctt caagaagagg
540
tgattggtgg gtggccccct cctcccccca acatcagtct gctgcagctg ccagaaaaca
600
tgctactac taccagcaga aaggagcag agcccagagc atcaccagga gtgcctgcta
660
gtgtactggc agcttgccac cccctcctct cccttcaccc agacacgtgg tagggatgga
720
aaaggattct tcacagagca ctctggcaca ccatatcgga gaaaaattga tagattagtt
780
aatgggtttt cttgaattcg agaagcatag atctgttctc catattggta tgttctccct
840
caaccaagat cttctaaaaa gaaataatat tttagtcttc tgcttgagga actgactgtg
900
aagcgacgcc cagtgaaaaa catgatcttg cagcagctct ggtggcagct gtccttgagg
960
aacctttggt gtgtggtggg aagctatcag aacaagaaat gtaggcattt cccgtttttt
1020
ttgggggggg ggtggggggg cagggctctg ccctcttgaa aggcatttac ttgtttaaca
1080
cttgtccagc tacagtgggg tacagtagct ggctattcac aggcattcac atagcccact
1140
agtctcatat ttttttctt ttgagaaatt ggaaactctt tctgttgcta ttatattaat
1200
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1260
aaaaaa
1266

<210> 3276
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3276
 Met Ala Lys His His Pro Asp Leu Ile Phe Cys Arg Lys Gln Ala Gly
 1 5 10 15
 Val Ala Ile Gly Arg Leu Cys Glu Lys Cys Asp Gly Lys Cys Val Ile
 20 25 30
 Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile Cys Asp Glu
 35 40 45
 Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys Gly Gly Pro
 50 55 60
 Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile Gln Glu Lys
 65 70 75 80
 Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser Ser Lys Thr
 85 90 95
 Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys Arg
 100 105 110

<210> 3277
 <211> 1435
 <212> DNA
 <213> Homo sapiens

<400> 3277
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 120
 cagacttccg tctccttaa atgttcatgc gtaagtgcgt ggcagaagcg gctcaagcgc
 180
 actcgtgcgt cattgctgtc agggccgagg gagcgggtgca aggccgccgc gtgacgtcag
 240
 gacgccgagg tcaggacgtc gaagccaaag aagaccagag ccagccgggt ggcacagcgg
 300
 tgtcgtggcc gtgttgctga tcgcctgggt gggtgttggc gtgtccctgc agcgaaggat
 360
 cctgggtggc agtgaaaaag cagtctggct cccgaggtcc accccttata cccaaggctc
 420
 cagatggcgg ccaacgtggg tgatcaacgt agcacagatt ggtcttctca gtacagcatg
 480
 gtggctgggg caggccgaga gaatggcatg gagacgccga tgcacgagaa cccggagtg
 540
 gagaaggccc gtcaggccct ggccagcatc agcaagtcag gagctgccgg cggctctgcc
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 660
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 720
 gctactacta tcccatgagc atgtaccaga gctatggctc cccttcccag tatgggatgg
 780

ccggctccta tggctagcca caccacagca gccatccgca cccaacacc aagggactct
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 gaaccagccc ccagtcctccg gcatggatga gagcatgtcc taccaggctc cccctcagca
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 1020
 acggggccagg cctatgggcc acacacctac accgaacctg ccaagcccaa gaaggccaa
 1080
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 1435

<210> 3278

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3278

Met Ala Ala Asn Val Gly Asp Gln Arg Ser Thr Asp Trp Ser Ser Gln
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 20 25 30
 Met His Glu Asn Pro Glu Trp Glu Lys Ala Arg Gln Ala Leu Ala Ser
 35 40 45
 Ile Ser Lys Ser Gly Ala Ala Gly Gly Ser Ala Lys Ser Ser Ser Asn
 50 55 60
 Gly Pro Val Ala Ser Ala Ser Thr Cys Pro Arg Gln Lys Pro Gln Leu
 65 70 75 80
 Cys Ser Ser Ser Ser Thr Thr Ser Gly Thr Ser Ser Thr Thr Met Pro
 85 90 95
 Thr Pro Thr Ala Thr Thr Ile Pro
 100

<210> 3279

<211> 1130

<212> DNA

<213> Homo sapiens

<400> 3279

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 120

cctgagccag aaccaggcac catggtggag aagggatcag atagctcctc agagaagggt
 180
 ggggtgcctg ggacccccag caccagagc ctaggcagcc ggaacttcac ccgcaacagc
 240
 aagaagatgc agagctggta cagtatgctg agccccactt ataagcagcg taatgaggac
 300
 ttccggaaac tgttcagcaa actccccgaa gcagaacgcc tcattgtgga ttactcctgc
 360
 gccctgcagc gtgagatcct gctccagggc cgcctctacc tctctgagaa ctggatctgc
 420
 ttctacagca acatcttccg ctgggagacc acgatctcca tccagctgaa ggaagtgaca
 480
 tgtctgaaga aggaaaagac ggccaagctg atccccaacg ccatccagat ctgcacggag
 540
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 660
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 720
 cccttgagc tgaacggtct ggggaccccc aagggaagtgg gagatgtgat cgcctgagc
 780
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 960
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 1020
 cccttgatc tgctgcccag tgaggagcta ttgacagaca caagtaactc ctcttcatcc
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 1130

<210> 3280

<211> 376

<212> PRT

<213> Homo sapiens

<400> 3280

Xaa	Arg	Ala	His	Arg	Ala	Ala	Ser	Met	Phe	Asp	Thr	Thr	Pro	His	Ser
1			5					10						15	
Gly	Arg	Ser	Thr	Pro	Ser	Ser	Ser	Pro	Ser	Leu	Arg	Lys	Arg	Leu	Gln
			20					25					30		
Leu	Leu	Pro	Pro	Ser	Arg	Pro	Pro	Pro	Glu	Pro	Glu	Pro	Gly	Thr	Met
		35					40					45			
Val	Glu	Lys	Gly	Ser	Asp	Ser	Ser	Ser	Glu	Lys	Gly	Gly	Val	Pro	Gly
	50					55				60					
Thr	Pro	Ser	Thr	Gln	Ser	Leu	Gly	Ser	Arg	Asn	Phe	Ile	Arg	Asn	Ser
65				70					75					80	
Lys	Lys	Met	Gln	Ser	Trp	Tyr	Ser	Met	Leu	Ser	Pro	Thr	Tyr	Lys	Gln
			85					90					95		
Arg	Asn	Glu	Asp	Phe	Arg	Lys	Leu	Phe	Ser	Lys	Leu	Pro	Glu	Ala	Glu

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      100      105      110
Arg Leu Ile Val Asp Tyr Ser Cys Ala Leu Gln Arg Glu Ile Leu Leu
      115      120      125
Gln Gly Arg Leu Tyr Leu Ser Glu Asn Trp Ile Cys Phe Tyr Ser Asn
      130      135      140
Ile Phe Arg Trp Glu Thr Thr Ile Ser Ile Gln Leu Lys Glu Val Thr
145      150      155      160
Cys Leu Lys Lys Glu Lys Thr Ala Lys Leu Ile Pro Asn Ala Ile Gln
      165      170      175
Ile Cys Thr Glu Ser Glu Lys His Phe Phe Thr Ser Phe Gly Ala Arg
      180      185      190
Asp Arg Cys Phe Leu Leu Ile Phe Arg Leu Trp Gln Asn Ala Leu Leu
      195      200      205
Glu Lys Thr Leu Ser Pro Arg Glu Leu Trp His Leu Val His Gln Cys
      210      215      220
Tyr Gly Ser Glu Leu Gly Leu Thr Ser Glu Asp Glu Asp Tyr Val Ser
225      230      235      240
Pro Leu Gln Leu Asn Gly Leu Gly Thr Pro Lys Glu Val Gly Asp Val
      245      250      255
Ile Ala Leu Ser Asp Ile Thr Ser Ser Gly Ala Ala Asp Arg Ser Gln
      260      265      270
Glu Pro Ser Pro Val Gly Ser Arg Arg Gly His Val Thr Pro Asn Leu
      275      280      285
Ser Arg Ala Ser Ser Asp Ala Asp His Gly Ala Glu Glu Asp Lys Glu
      290      295      300
Glu Gln Val Asp Ser Gln Pro Asp Ala Ser Ser Ser Gln Thr Val Thr
305      310      315      320
Pro Val Ala Glu Pro Pro Ser Thr Glu Pro Thr Gln Pro Asp Gly Pro
      325      330      335
Thr Thr Leu Gly Pro Leu Asp Leu Leu Pro Ser Glu Glu Leu Leu Thr
      340      345      350
Asp Thr Ser Asn Ser Ser Ser Ser Thr Gly Glu Glu Ala Asp Leu Ala
      355      360      365
Ala Leu Leu Pro Asp Leu Ser Gly
      370      375

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<210> 3281

<211> 842

<212> DNA

<213> Homo sapiens

<400> 3281

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120
ggcaaggagg tagagccagc ggctgaggac ctgtcagggc cagtcccagc tctgcagctt
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240
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300
ctggttcaca aagtgtgttg tttccaggaa gaacagatgg gggcgctga gggcaaaggg
360

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cctgagtgtg ggtcgaggat atgccggctg ctcgctcagg ggctggggtt tcattctgtg
 420
 tgtcttgaca ggggtgtgaca cttggcacca cactgttccc tgcccccca tggatgtggc
 480
 ccacatgatg ttcctttcct cttgcaaaag aagttgctgg aaggcccaact gtccagcagc
 540
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 600
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 720
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 tc
 842

<210> 3282

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3282

Met	Pro	Thr	Asn	Pro	Gly	Leu	His	Leu	Ala	Leu	Ala	Pro	Val	Ser	Val
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Pro	Asp	Thr	Ser	Leu	Gln	Val	Leu	Leu	Val	Ala	Gly	Pro	Thr	Lys	Ala
			20					25					30		
Pro	Trp	Pro	Arg	Gln	Pro	Gly	Gly	Cys	Trp	Thr	Val	Gly	Leu	Pro	Ala
		35				40						45			
Thr	Ser	Phe	Ala	Arg	Gly	Lys	Glu	His	His	Val	Gly	His	Ile	His	Glu
	50					55					60				
Gly	Thr	Gly	Asn	Ser	Val	Val	Pro	Ser	Val	Thr	Pro	Cys	Gln	Asp	Thr
65					70					75				80	
Gln	Asp	Glu	Asn	Pro	Ala	Pro	Glu	Arg	Ala	Ala	Gly	Ile	Ser	Ser	Thr
				85					90					95	
His	Thr	Gln	Ala	Leu	Cys	Pro	Gln	Ala	Pro	Pro	Ser	Val	Leu	Pro	Gly
			100					105					110		
Asn	Asn	Thr	Leu	Cys	Glu	Pro	Val	Glu	Pro	Gly	Thr	Ala	Trp	Ala	
		115					120					125			
Ser	Glu	Gln	Ser	His	Glu	Ile	Arg	Val	Arg	Thr	Pro	Ser	Cys	Arg	Gly
	130					135						140			
Arg	Asp														
145															

<210> 3283

<211> 3268

<212> DNA

<213> Homo sapiens

<400> 3283

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120
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360
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660
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720
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1680

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1920
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1980
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2100
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3268

<210> 3284
 <211> 1012
 <212> PRT
 <213> Homo sapiens

<400> 3284

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      20           25           30
Ala Phe Thr Arg Xaa His Val Cys Ala Glu Asn Leu Pro Val Leu
      35           40           45
Met Glu His Lys Ala Thr Thr Ile Gln Lys His Val Arg Gly Trp Met
      50           55           60
Ala Arg Arg His Phe Gln Arg Leu Arg Asp Ala Ala Ile Val Ile Gln
      65           70           75           80
Cys Ala Phe Arg Met Leu Lys Ala Arg Arg Glu Leu Lys Ala Leu Arg
      85           90           95
Ile Glu Ala Arg Ser Ala Glu His Leu Lys Arg Leu Asn Val Gly Met
      100          105          110
Glu Asn Lys Val Val Gln Leu Gln Arg Lys Ile Asp Glu Gln Asn Lys
      115          120          125
Glu Phe Lys Thr Leu Ser Glu Gln Leu Ser Val Thr Thr Ser Thr Tyr
      130          135          140
Thr Met Glu Val Glu Arg Leu Lys Lys Glu Leu Val His Tyr Gln Gln
      145          150          155          160
Ser Pro Gly Glu Asp Thr Ser Leu Arg Leu Gln Glu Glu Val Glu Ser
      165          170          175
Leu Arg Thr Glu Leu Gln Arg Ala His Ser Glu Arg Lys Ile Leu Glu
      180          185          190
Asp Ala His Ser Arg Glu Lys Asp Glu Leu Arg Lys Arg Val Ala Asp
      195          200          205
Leu Glu Gln Glu Asn Ala Leu Leu Lys Asp Glu Lys Glu Gln Leu Asn
      210          215          220
Asn Gln Ile Leu Cys Gln Ser Lys Asp Glu Phe Ala Gln Asn Ser Val
      225          230          235          240
Lys Glu Asn Leu Leu Met Lys Lys Glu Leu Glu Glu Glu Arg Ser Arg
      245          250          255
Tyr Gln Asn Leu Val Lys Glu Tyr Ser Gln Leu Glu Gln Arg Tyr Asp
      260          265          270
Asn Leu Arg Asp Glu Met Thr Ile Ile Lys Gln Thr Pro Gly His Arg
      275          280          285
Arg Asn Pro Ser Asn Gln Ser Ser Leu Glu Ser Asp Ser Asn Tyr Pro
      290          295          300
Ser Ile Ser Thr Ser Glu Ile Gly Asp Thr Glu Asp Ala Leu Gln Gln
      305          310          315          320
Val Glu Glu Ile Gly Leu Glu Lys Ala Ala Met Asp Met Thr Val Phe
      325          330          335
Leu Lys Leu Gln Lys Arg Val Arg Glu Leu Glu Gln Glu Arg Lys Lys
      340          345          350
Leu Gln Val Gln Leu Glu Lys Arg Glu Gln Gln Asp Ser Lys Lys Val
      355          360          365
Gln Ala Glu Pro Pro Gln Thr Asp Ile Asp Leu Asp Pro Asn Ala Asp

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370		375		380
Leu Ala Tyr Asn Ser	Leu Lys Arg Gln Glu Leu Glu Ser Glu Asn Lys			
385	390	395		400
Lys Leu Lys Asn Asp	Leu Asn Glu Leu Arg Lys Ala Val Ala Asp Gln			
	405	410		415
Ala Thr Gln Asn Asn Ser Ser His Gly Ser Pro Asp Ser Tyr Ser Leu				
	420	425		430
Leu Leu Asn Gln Leu Lys Leu Ala His Glu Glu Leu Glu Val Arg Lys				
	435	440		445
Glu Glu Val Leu Ile Leu Arg Thr Gln Ile Val Ser Ala Asp Gln Arg				
	450	455		460
Arg Leu Ala Gly Arg Asn Ala Glu Pro Asn Ile Asn Ala Arg Ser Ser				
465	470	475		480
Trp Pro Asn Ser Glu Arg His Val Asp Gln Glu Asp Ala Ile Glu Ala				
	485	490		495
Tyr His Gly Val Cys Gln Thr Asn Arg Leu Leu Glu Ala Gln Leu Gln				
	500	505		510
Ala Gln Ser Leu Glu His Glu Glu Glu Val Glu His Leu Lys Ala Gln				
	515	520		525
Leu Glu Ala Leu Lys Glu Glu Met Asp Lys Gln Gln Gln Thr Phe Cys				
	530	535		540
Gln Thr Leu Leu Leu Ser Pro Glu Ala Gln Val Glu Phe Gly Val Gln				
545	550	555		560
Gln Glu Ile Ser Arg Leu Thr Asn Glu Asn Leu Asp Leu Lys Glu Leu				
	565	570		575
Val Glu Lys Leu Glu Lys Asn Glu Arg Lys Leu Lys Lys Gln Leu Lys				
	580	585		590
Ile Tyr Met Lys Lys Ala Gln Asp Leu Glu Ala Ala Gln Ala Leu Ala				
	595	600		605
Gln Ser Glu Arg Lys Arg His Glu Leu Asn Arg Gln Val Thr Val Gln				
	610	615		620
Arg Lys Glu Lys Asp Phe Gln Gly Met Leu Glu Tyr His Lys Glu Asp				
625	630	635		640
Glu Ala Leu Leu Ile Arg Asn Leu Val Thr Asp Leu Lys Pro Gln Met				
	645	650		655
Leu Ser Gly Thr Val Pro Cys Leu Pro Ala Tyr Ile Leu Tyr Met Cys				
	660	665		670
Ile Arg His Ala Asp Tyr Thr Asn Asp Asp Leu Lys Val His Ser Leu				
	675	680		685
Leu Thr Ser Thr Ile Asn Gly Ile Lys Lys Val Leu Lys Lys His Asn				
	690	695		700
Asp Asp Phe Glu Met Thr Ser Phe Trp Leu Ser Asn Thr Cys Arg Leu				
705	710	715		720
Leu His Cys Leu Lys Gln Tyr Ser Gly Asp Glu Gly Phe Met Thr Gln				
	725	730		735
Asn Thr Ala Lys Gln Asn Glu His Cys Leu Lys Asn Phe Asp Leu Thr				
	740	745		750
Glu Tyr Arg Gln Val Leu Ser Asp Leu Ser Ile Gln Ile Tyr Gln Gln				
	755	760		765
Leu Ile Lys Ile Ala Glu Gly Val Leu Gln Pro Met Ile Val Ser Ala				
	770	775		780
Met Leu Glu Asn Glu Ser Ile Gln Gly Leu Ser Gly Val Lys Pro Thr				
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Gly Tyr Arg Lys Arg Ser Ser Ser Met Ala Asp Gly Asp Asn Ser Tyr				

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<210> 3285
<211> 1518
<212> DNA
<213> Homo sapiens
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2478

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 720
 gaaacatcgt tagcaaggag ctactgcttt cctttcttaa acatgttttg ggcattgacca
 780
 cactctggaa gtggtgaact gttacacatt tgggtgtgtgt gtacataaca tcaaaaacta
 840
 ctgtgtgaaa cttgagaatg tctgattaaa gatttcaatg tatatctaaa aactaactca
 900
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 960
 cttttacccc catcatagca cattatttgt gcacaactag tgagggtctgt gcgggtcatc
 1020
 atccccataa ccaagtgcgt ctgtgttgag tcatatcatt ctgtgctggt tttagaagtc
 1080
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 aaaaacctga gatacgaggc agcaactagc gacacttaca ggaagggaaa gaacaatgac
 1200
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 1320
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 1380
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<210> 3286

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3286

Met	Lys	Ser	His	Pro	Gly	Gln	Lys	Thr	Val	His	Phe	Ser	Lys	Thr	Glu
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Lys	Asn	Leu	Arg	Tyr	Glu	Ala	Ala	Thr	Ser	Asp	Thr	Tyr	Arg	Lys	Gly
		20						25					30		
Lys	Asn	Asn	Asp	Asn	Thr	Arg	Pro	Ala	Pro	Pro	Pro	Lys	Ser	Cys	Cys
		35					40					45			
Cys	Glu	Leu	Arg	Leu	Gln	Lys	Arg	Thr	His	Thr	Val	Ala	Asp	Lys	Thr
		50				55					60				
Gln	Ala	Arg	Arg	Met	Phe	Glu	Ser	Gln	Ser	Ala	Leu	Ser	Leu	Val	Pro
65					70					75				80	
Val	Thr	Ser	Tyr	Val	Gln	Leu	Pro	Gly	Pro	Ile	Pro	Tyr	Ser	Asp	Cys
				85					90					95	
Arg	Leu	Arg	Thr	Glu	Asp	Ala	Pro	Leu	Leu	Ser	Leu	His	Phe	Asp	Leu
				100				105					110		
Leu	Phe	Pro	Leu	Lys	Thr	Arg	Arg	Pro	Ala	Phe	Pro	Lys	Thr	Ala	Trp

115	120	125
Pro Trp Leu Cys Thr Leu Phe Thr Thr Asp Gln Asn Ser Ile		
130	135	140

<210> 3287
 <211> 921
 <212> DNA
 <213> Homo sapiens

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 180
 gggttgcgag tgactcgggc accatcacc cttgtgtgtaa agacctgcga gtgctgcagc
 240
 tggaaataga gggcgcggaa gcgacgctgg gcatcgcccg ctccatcgag gtgtgccgag
 300
 ggagctcccg agccctttaa gctctccctg tctcgcgtag aggggaataa aaagggtgctt
 360
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 420
 tacttgagga ggccgaagct gaagctacag gactgagggg ctggaaaggg cgcgggcgag
 480
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 660
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 720
 ctgggtgccc tagacctggc ctctctctc cctgcgctgc agaccaacgc ggccggaaaa
 780
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 921

<210> 3288
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3288
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 Leu Gly Arg Val Gly Ile Val Ser Pro Ala Pro Phe Pro Ala Pro Gln
 20 25 30
 Ser Cys Ser Phe Ser Phe Gly Leu Ser Lys Tyr Pro Gly Pro Pro Cys

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      35              40              45
Ile Pro Leu Pro Phe Ser Cys Gly Cys Gly Ala Ser Leu Asn Arg Ser
  50              55              60
Thr Phe Leu Phe Pro Ser Thr Arg Asp Arg Glu Ser Leu Lys Gly Ser
  65              70              75              80
Gly Ala Pro Ser Ala His Leu Asp Gly Ala Gly Asp Ala Gln Arg Arg
      85              90              95
Phe Arg Ala Leu Tyr Phe Gln Leu Gln His Ser Gln Val Phe Thr Ala
      100              105              110
Gln Gly Asp Gly Ala Arg Val Thr Arg Asn Pro Gly Glu Gly Arg Ser
      115              120              125
Phe Pro Arg Arg Gly Ala Thr Ser Phe Pro Asp Trp Ala Tyr Ala Gly
      130              135              140
Gly Arg Gln Leu
145

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<210> 3289
 <211> 554
 <212> DNA
 <213> Homo sapiens

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<400> 3289
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120
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180
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240
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300
gaccaggcat ccacgtcggg cagcacatgc taccagtc acagaagagg aacagaggc
360
tccgagagga agggactgtg tccagggcgg gaccaggcc cttctgcact ggtcaatga
420
gccaaagcaca tcacccagc ccttggggag caggagccgg gccttgagg gtgaggagct
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ataagctgca attg
554

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<210> 3290
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 <212> PRT
 <213> Homo sapiens

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<400> 3290
Met Ile Pro Gly Cys Leu Pro Trp Ser Phe Ala Phe Pro Ser Ser Ser
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Pro Cys Lys Ala Arg Leu Leu Leu Pro Lys Gly Trp Gly Asp Val Leu
      20              25              30
Gly Ser Leu Thr Gln Cys Arg Arg Ala Trp Val Pro Pro Trp Thr Gln

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35 40 45
 Ser Leu Pro Leu Gly Ala Ser Val Ser Ser Ser Val Asp Trp Val Ala
 50 55 60
 Cys Ala Ala Arg Arg Gly Cys Leu Val Ser Gly Arg Trp Ser Thr His
 65 70 75 80
 His Arg Val Glu Ser Lys Ala Ser Pro Leu Ser Pro Ser Leu Pro Trp
 85 90 95
 Thr Ser Pro Leu Pro Ala Thr Leu Ala Gly Leu Cys Glu Trp Glu Gly
 100 105 110
 Arg Pro Ala Leu Ala Gly Ser Ser Pro Val Pro Pro Ala Leu Ile Leu
 115 120 125
 Gly

<210> 3291

<211> 1075

<212> DNA

<213> Homo sapiens

<400> 3291

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 120
 tgggcccctt ctcccgcac gcctgcggtg aggtcctccg ccccgctctcc taccatagct
 180
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1075

<210> 3292

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3292

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Val	Ala	Ala	Leu	Gly	Trp	Arg	Pro	Pro	Arg	Val	Pro	Ser	Pro	Ala	Pro
			20					25					30		
Trp	Ser	Ala	Thr	Pro	Gly	Pro	Pro	Trp	Ala	Pro	Ser	Pro	Ala	Thr	Pro
			35				40					45			
Ala	Val	Arg	Leu	Pro	Ala	Pro	Ser	Pro	Thr	Ile	Ala	Ala	Ser	Val	Pro
			50			55				60					
Pro	His	Trp	Leu	Phe	Thr	Trp	Leu	Ala	Val	Ser	Val	Ser	Gln	Pro	Gly
65					70					75				80	
Ser	Glu	Ser	Xaa	Arg	Arg	Pro	Leu	Pro	Pro	Pro	Gln	Leu	Pro	Pro	Pro
				85					90					95	
Thr	Pro	Pro	Ser	Leu	Pro										
					100										

<210> 3293

<211> 2362

<212> DNA

<213> Homo sapiens

<400> 3293

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720

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aaaaaaaaaa aaaaaaaaaa aa
2362

<210> 3294
<211> 353
<212> PRT
<213> Homo sapiens

<400> 3294
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Gln Arg Gly His Met Ala Cys Ser Arg Pro Pro Ser Gln Cys Glu Pro
20 25 30
Thr Ser Leu Pro Pro Gly Pro Pro Ala Gly Arg Arg His Leu Pro Leu
35 40 45
Ser Arg Arg Arg Arg Glu Met Ser Ser Asn Lys Glu Gln Arg Ser Ala
50 55 60
Val Phe Val Ile Leu Phe Ala Leu Ile Thr Ile Leu Ile Leu Tyr Ser
65 70 75 80
Ser Asn Ser Ala Asn Glu Val Phe His Tyr Gly Ser Leu Arg Gly Arg
85 90 95
Ser Arg Arg Pro Val Asn Leu Lys Lys Trp Ser Ile Thr Asp Gly Tyr
100 105 110
Val Pro Ile Leu Gly Asn Lys Thr Leu Pro Ser Arg Cys His Gln Cys
115 120 125
Val Ile Val Ser Ser Ser Ser His Leu Leu Gly Thr Lys Leu Gly Pro
130 135 140
Glu Ile Glu Arg Ala Glu Cys Thr Ile Arg Met Asn Asp Ala Pro Thr
145 150 155 160
Thr Gly Tyr Ser Ala Asp Val Gly Asn Lys Thr Thr Tyr Arg Val Val
165 170 175
Ala His Ser Ser Val Phe Arg Val Leu Arg Arg Pro Gln Glu Phe Val
180 185 190
Asn Arg Thr Pro Glu Thr Val Phe Ile Phe Trp Gly Pro Pro Ser Lys
195 200 205
Met Gln Lys Pro Gln Gly Ser Leu Val Arg Val Ile Gln Arg Ala Gly
210 215 220
Leu Val Phe Pro Asn Met Glu Ala Tyr Ala Val Ser Pro Gly Arg Met
225 230 235 240
Arg Gln Phe Asp Asp Leu Phe Arg Gly Glu Thr Gly Lys Asp Arg Glu
245 250 255
Lys Ser His Ser Trp Leu Ser Thr Gly Trp Phe Thr Met Val Ile Ala
260 265 270
Val Glu Leu Cys Asp His Val His Val Tyr Gly Met Val Pro Pro Asn
275 280 285
Tyr Cys Ser Gln Arg Pro Arg Leu Gln Arg Met Pro Tyr His Tyr Tyr
290 295 300
Glu Pro Lys Gly Pro Asp Glu Cys Val Thr Tyr Ile Gln Asn Glu His
305 310 315 320
Ser Arg Lys Gly Asn His His Arg Phe Ile Thr Glu Lys Arg Val Phe
325 330 335
Ser Ser Trp Ala Gln Leu Tyr Gly Ile Thr Phe Ser His Pro Ser Trp
340 345 350
Thr

<210> 3295
 <211> 690
 <212> DNA
 <213> Homo sapiens

<400> 3295
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 <212> PRT
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<400> 3296
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 Thr Glu His Ala Asp Pro Leu Pro Phe Pro Ser Val Ser Leu Ser Gly
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 Phe Thr Val Gly Thr Leu Ser Glu Thr Ser Thr Gly Gly Pro Ala Thr
 65 70 75 80
 Pro Thr Trp Lys Glu Cys Pro Ile Cys Lys Glu Arg Phe Pro Ala Glu
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<212> DNA
<213> Homo sapiens

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 <213> Homo sapiens

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 Glu Gly Glu Arg Lys Gly Ala Thr Asp Gly Ser Ala Trp Lys Val Tyr
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<210> 3300

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3300

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Ser Ile Gln Gln Phe Thr Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe			
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Leu Glu Asp Val Ala Arg Thr Ala Asp His Ile Ser Arg Asp Ala Phe			
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Leu Lys Arg Pro Ile Ser Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg			
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Ala Arg Ser Lys Gly Ile Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr			
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Lys Arg Lys Glu Asn Ser Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe			
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Cys Trp His Val Lys Leu Gln Phe Pro Gln Ser Gln Ala Glu Tyr Ile			
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Glu Lys Arg Val Pro Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro			
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Tyr Ile Asp Pro Glu Lys Ser Asp Pro Val Ile Arg Gln Arg Leu Lys			
	165	170	175
Ala Tyr Ile Arg Ser Gln Thr Gly Val Gln Ile Leu Met Lys Ile Glu			
	180	185	190
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<211> 2109

<212> DNA

<213> Homo sapiens

<400> 3301

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<210> 3302

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3302

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Arg Asp Gly Glu Gly Pro Val Arg Glu Ala Thr Val Lys Pro Phe Ala
      50           55           60
Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg
      65           70           75           80
Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val
      85           90           95
Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro
      100          105          110
Met Lys Val Lys Phe Thr His Gly Gly Thr Gly Ser Ser Gln Thr Ala
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Pro Thr Cys Gly Arg Glu Ser Ser Pro Arg Glu Thr Lys Leu Arg Met
      130          135          140
Ala Ser Met Glu Ser Pro Xaa Val Asn Ala Phe Pro Ala Gln Asn Asn
      145          150          155          160
Tyr Gly Leu Tyr Asp Leu Leu Gly Asn Val Trp Glu Trp Thr Ala Ser
      165          170          175
Pro Tyr Gln Ala Ala Glu Gln Asp Met Arg Val Leu Arg Gly His Pro
      180          185          190
Gly Ser Thr Gln Leu Met Ala Leu Pro Ile Thr Gly Pro Gly Ser Pro
      195          200          205
Pro Gly Trp Ala Thr Leu Gln Ile Gln Pro Gln Thr Thr Ser Val Ser
      210          215          220
Ala Val Leu Gln Thr Gln Ala Gly Arg Gln Gly Ser Cys Lys Gln Pro
      225          230          235          240
Gly Gly Asp Lys Glu Lys Ser Leu Leu Gly Ser Leu Ser Phe Pro Gly
      245          250          255
His Val Ala Asn Ser Ala Ile Pro Ser Ser Arg Ala Ser Ala Ser Gly
      260          265          270
Lys Asn Phe Pro Phe Pro Val Ser His Pro Ser Val Ala Gly Ala Ser
      275          280          285
His Gln Gly Arg Arg Gly Leu Ser Leu Leu Cys Phe Gly Glu Gly Ala
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<211> 699

<212> DNA

<213> Homo sapiens

<400> 3303

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<210> 3304

<211> 233

<212> PRT

<213> Homo sapiens

<400> 3304

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 Lys Lys Gly Trp Leu Thr Lys Gln Tyr Glu Asp Gly Gln Trp Lys Lys
 50 55 60
 His Trp Phe Val Leu Ala Asp Gln Ser Leu Arg Tyr Tyr Arg Asp Ser
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 Val Ala Glu Glu Ala Ala Asp Leu Asp Gly Glu Ile Asp Leu Ser Ala
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 Cys Tyr Asp Val Thr Glu Tyr Pro Val Gln Arg Asn Tyr Gly Phe Gln
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 Ile His Thr Lys Glu Gly Glu Phe Thr Leu Ser Ala Met Thr Ser Gly
 115 120 125
 Ile Arg Arg Asn Trp Ile Gln Thr Ile Met Lys His Val His Pro Thr
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 145 150 155 160
 Ser Cys Ser Phe Glu Thr Cys Pro Arg Ser Thr Glu Lys Gln Glu Ala
 165 170 175
 Glu Leu Gly Glu Pro Asp Pro Glu Gln Lys Arg Ser Arg Ala Arg Glu

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 <212> DNA
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<210> 3306

<211> 319
 <212> PRT
 <213> Homo sapiens

<400> 3306

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Trp His Pro Thr Leu Asn Leu Pro Leu Ser Pro Gln Gly Thr Val Arg
          50           55           60
Thr Ala Val Glu Phe Gln Val Met Thr Gln Thr Gln Ser Leu Ser Phe
65           70           75           80
Leu Leu Gly Ser Ser Ala Ser Leu Asp Cys Gly Phe Ser Met Ala Pro
          85           90           95
Gly Leu Asp Leu Ile Ser Val Glu Trp Arg Leu Gln His Lys Gly Arg
          100          105          110
Gly Gln Leu Val Tyr Ser Trp Thr Ala Gly Gln Gly Gln Ala Val Arg
          115          120          125
Lys Gly Ala Thr Leu Xaa Ala Cys Thr Thr Gly His Gly Xaa Arg Asp
          130          135          140
Ala Ser Leu Thr Leu Pro Gly Leu Thr Ile Gln Asp Glu Gly Thr Tyr
145          150          155          160
Ile Cys Gln Ile Thr Thr Ser Leu Tyr Arg Ala Gln Gln Ile Ile Gln
          165          170          175
Leu Asn Ile Gln Ala Ser Pro Lys Val Arg Leu Ser Leu Ala Asn Glu
          180          185          190
Ala Leu Leu Pro Thr Leu Ile Cys Asp Ile Ala Gly Tyr Tyr Pro Leu
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Asp Val Val Val Thr Trp Thr Arg Glu Glu Leu Gly Gly Ser Pro Ala
          210          215          220
Gln Val Ser Gly Ala Ser Phe Ser Ser Leu Arg Gln Ser Val Ala Gly
225          230          235          240
Thr Tyr Ser Ile Ser Ser Ser Leu Thr Ala Glu Pro Gly Leu Cys Arg
          245          250          255
Cys His Leu His Leu Pro Gly His Thr His Leu Ser Gly Gly Ala Pro
          260          265          270
Trp Gly Gln His Pro Gly Cys Pro Thr Arg Ala Glu Asn Ser Leu Gly
          275          280          285
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<210> 3307
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 <212> DNA
 <213> Homo sapiens

<400> 3307

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<210> 3308
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3308
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 35 40 45
 Trp Asp Cys Asp Ile Gly Arg Arg Gly Arg Ser Pro Ala Leu Ser Ser
 50 55 60
 Ala Gly Trp Ala Gly Ile His Leu Ala Ala Ser Gln Gly Leu Cys Pro
 65 70 75 80
 Ala Gly Trp Ser Leu Cys Cys Pro Asn Gln Val Ser Thr Phe Pro Ala
 85 90 95
 Pro Met Arg Arg Glu Gly Gly Arg Trp Trp Leu Gly Trp Arg
 100 105 110

<210> 3309
 <211> 737
 <212> DNA
 <213> Homo sapiens

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<210> 3310
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 <212> PRT
 <213> Homo sapiens

<400> 3310
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 20 25 30
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 35 40 45
 Gln Thr His Pro Asp Val Pro Val Gly Asp Glu Ser Gln Ala Arg Val
 50 55 60
 Leu His Met Val Gly Asp Lys Pro Val Phe Ser Phe Gln Pro Arg Gly
 65 70 75 80
 His Leu Glu Ile Gly Glu Lys Leu Asp Ile Ile Arg Gln Lys Arg Leu
 85 90 95
 Ser His Val Ser Gly His Arg Ser Tyr Tyr Leu Arg Gly Ala Gly Ala
 100 105 110
 Leu Leu Gln His Gly Leu Val Asn Phe Thr Phe Asn Lys Leu Leu Arg
 115 120 125
 Arg Gly Phe Thr Pro Met Thr Val Pro Asp Leu Leu Arg Gly Ala Val
 130 135 140
 Phe Glu Gly Cys Gly Met Thr Pro Asn Ala Asn Pro Ser Gln Ile Tyr
 145 150 155 160
 Asn Ile Asp Pro Ala Arg Phe Lys Asp Leu Asn Leu Ala Gly Thr Ala
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 Glu Val Gly Leu Ala Gly Tyr Phe Met Asp His Thr Val Ala Phe Arg
 180 185 190
 Asp Leu Pro Val Arg Met Val Cys Ser Ser Thr Cys Tyr Arg Ala Glu
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 Thr Asn
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<210> 3311
 <211> 486
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 <213> Homo sapiens

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<210> 3312
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 3312
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 Phe Tyr Glu Asp Cys Thr Ala Ser Ile Trp Glu Tyr Glu Asp Asp Phe
 35 40 45
 Gln Ile Gln Arg Ser Pro Asn Arg Trp Ser Ser Val Phe Trp Lys Val
 50 55 60
 Gly Leu Ile Ser Gly Thr Val Phe Val Ile Leu Gly Leu Thr Val Leu
 65 70 75 80
 Ala Val Gly Phe Leu Val Pro Pro Lys Ile Glu Ala Phe Gly Glu Ala
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<210> 3313
 <211> 1791
 <212> DNA
 <213> Homo sapiens

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<210> 3314

<211> 537

<212> PRT

<213> Homo sapiens

<400> 3314

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 Gly Gly Gly Arg Xaa Arg Ser Arg Gln Pro Glu Gly Leu Arg Ser His
 50 55 60
 His Lys Val Ser Val Ser Pro Val Val His Val Arg Gly Leu Cys Glu
 65 70 75 80
 Ser Val Val Glu Ala Asp Leu Val Glu Ala Leu Glu Lys Phe Gly Thr
 85 90 95
 Ile Cys Tyr Val Met Met Met Pro Phe Lys Arg Gln Ala Leu Val Glu
 100 105 110
 Phe Glu Asn Ile Asp Ser Ala Lys Glu Cys Val Thr Phe Ala Ala Asp
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 Glu Pro Val Tyr Ile Ala Gly Gln Gln Ala Phe Phe Asn Tyr Ser Thr
 130 135 140
 Ser Lys Arg Ile Thr Arg Pro Gly Asn Thr Asp Asp Pro Ser Gly Gly
 145 150 155 160
 Asn Lys Val Leu Leu Ser Ile Gln Asn Pro Leu Tyr Pro Ile Thr
 165 170 175
 Val Asp Val Leu Tyr Thr Val Cys Asn Pro Val Gly Lys Val Gln Arg
 180 185 190
 Ile Val Ile Phe Lys Arg Asn Gly Ile Gln Ala Met Val Glu Phe Glu
 195 200 205
 Ser Val Leu Cys Ala Gln Lys Ala Lys Ala Ala Leu Asn Gly Ala Asp
 210 215 220
 Ile Tyr Ala Gly Cys Cys Thr Leu Lys Ile Glu Tyr Ala Arg Pro Thr
 225 230 235 240
 Arg Leu Asn Val Ile Arg Asn Asp Asn Asp Ser Trp Asp Tyr Thr Lys
 245 250 255
 Pro Tyr Leu Gly Arg Arg Asp Arg Gly Lys Gly Arg Gln Arg Gln Ala
 260 265 270
 Ile Leu Gly Glu His Pro Ser Ser Phe Arg His Asp Gly Tyr Gly Ser
 275 280 285
 His Gly Pro Leu Leu Pro Leu Pro Ser Arg Tyr Arg Met Gly Ser Arg
 290 295 300
 Asp Thr Pro Glu Leu Val Ala Tyr Pro Leu Pro Gln Ala Ser Ser Ser
 305 310 315 320
 Tyr Met His Gly Gly Asn Pro Ser Gly Ser Val Val Met Val Ser Gly
 325 330 335
 Leu His Gln Leu Lys Met Asn Cys Ser Arg Val Phe Asn Leu Phe Cys
 340 345 350
 Leu Tyr Gly Asn Ile Glu Lys Val Lys Phe Met Lys Thr Ile Pro Gly
 355 360 365
 Thr Ala Leu Val Glu Met Gly Asp Glu Tyr Ala Val Glu Arg Ala Val
 370 375 380
 Thr His Leu Asn Asn Val Lys Leu Phe Gly Lys Arg Leu Asn Val Cys
 385 390 395 400
 Val Ser Lys Gln His Ser Val Val Pro Ser Gln Ile Phe Glu Leu Glu

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Phe Thr Ser Ala Gly Gln Ala Ser Lys Asn Ile Ile Gln Pro Pro Ser
          435          440          445
Cys Val Leu His Tyr Tyr Asn Val Pro Leu Cys Val Thr Glu Glu Thr
          450          455          460
Phe Thr Lys Leu Cys Asn Asp His Glu Val Leu Thr Phe Ile Lys Tyr
          465          470          475          480
Lys Val Phe Asp Ala Lys Pro Ser Ala Lys Thr Leu Ser Gly Leu Leu
          485          490          495
Glu Trp Glu Cys Lys Thr Asp Ala Val Glu Ala Leu Thr Ala Leu Asn
          500          505          510
His Tyr Gln Ile Arg Val Pro Asn Gly Ser Asn Pro Tyr Thr Leu Lys
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Leu Cys Phe Ser Thr Ser Ser His Leu
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<210> 3315

<211> 934

<212> DNA

<213> Homo sapiens

<400> 3315

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900

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<210> 3316
<211> 187
<212> PRT
<213> Homo sapiens

<400> 3316
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Val Pro Lys Thr Ser Leu Ser Ser Pro Pro Trp Pro Glu Val Val Leu
35 40 45
Pro Asp Pro Val Glu Glu Thr Arg His His Ala Glu Val Val Lys Lys
50 55 60
Val Asn Glu Met Ile Val Thr Gly Gln Tyr Gly Arg Leu Phe Ala Val
65 70 75 80
Val His Phe Ala Ser Arg Gln Trp Lys Val Thr Ser Glu Asp Leu Ile
85 90 95
Leu Ile Gly Asn Glu Leu Asp Leu Ala Cys Gly Glu Arg Ile Arg Leu
100 105 110
Glu Lys Val Leu Leu Val Gly Ala Asp Asn Phe Thr Leu Leu Gly Lys
115 120 125
Pro Leu Leu Gly Lys Asp Leu Val Arg Val Glu Ala Thr Val Ile Glu
130 135 140
Lys Thr Glu Ser Trp Pro Arg Ile Ile Met Arg Phe Arg Lys Arg Lys
145 150 155 160
Asn Phe Lys Lys Lys Arg Ile Val Thr Thr Pro Gln Thr Val Leu Arg
165 170 175
Ile Asn Ser Ile Glu Ile Ala Pro Cys Leu Leu
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<210> 3317
<211> 1665
<212> DNA
<213> Homo sapiens

<400> 3317
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420

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<210> 3318

<211> 253

<212> PRT

<213> Homo sapiens

<400> 3318

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 Glu Lys Arg Glu Glu Arg Arg Arg Glu Leu Glu Lys Lys Arg Leu

35 40 45
 Arg Glu Glu Glu Lys Arg Arg Arg Arg Glu Glu Glu Arg Cys Lys Lys
 50 55 60
 Lys Glu Thr Asp Lys Gln Lys Lys Ile Ala Glu Lys Glu Val Arg Ile
 65 70 75 80
 Lys Leu Leu Lys Lys Pro Glu Lys Gly Glu Glu Pro Thr Thr Glu Lys
 85 90 95
 Pro Lys Glu Arg Gly Glu Glu Ile Asp Thr Gly Gly Gly Lys Gln Glu
 100 105 110
 Ser Cys Ala Pro Gly Ala Val Val Lys Ala Arg Pro Met Glu Gly Ser
 115 120 125
 Leu Glu Glu Pro Gln Glu Thr Ser His Ser Gly Ser Asp Lys Glu His
 130 135 140
 Arg Asp Val Glu Arg Ser Gln Glu Gln Glu Ser Glu Ala Gln Arg Tyr
 145 150 155 160
 His Val Asp Asp Gly Arg Arg His Arg Ala His His Glu Pro Glu Arg
 165 170 175
 Leu Ser Arg Arg Ser Glu Asp Glu Gln Arg Trp Gly Lys Gly Pro Gly
 180 185 190
 Gln Asp Arg Gly Lys Lys Gly Ser Gln Asp Ser Gly Ala Pro Gly Glu
 195 200 205
 Ala Met Glu Arg Leu Gly Arg Ala Gln Arg Cys Asp Asp Ser Pro Ala
 210 215 220
 Pro Arg Lys Glu Arg Leu Ala Asn Lys Val Phe Ile Lys Pro Lys Lys
 225 230 235 240
 Lys Asn Val Ser Gly Cys Leu Lys Val Gln Ala Ala Cys
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<210> 3319

<211> 1541

<212> DNA

<213> Homo sapiens

<400> 3319

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 Tyr Glu Ile Lys Met Ala Phe Val Leu Trp Leu Leu Ser Pro Tyr Thr
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 Lys Gly Ala Ser Leu Leu Tyr Arg Lys Phe Val His Pro Ser Leu Ser
 85 90 95
 Arg His Glu Lys Glu Ile Asp Ala Tyr Ile Val Gln Ala Lys Glu Arg
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 Ser Tyr Glu Thr Val Leu Ser Phe Gly Lys Arg Gly Leu Asn Ile Ala

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Ala Pro Ala Pro Ala Tyr His Asp Pro Leu Tyr Leu Glu Asp Gln Val		
165	170	175
Ser His Arg Arg Pro Pro Ile Gly Tyr Arg Ala Gly Gly Leu Gln Asp		
180	185	190
Ser Asp Thr Glu Asp Glu Cys Trp Ser Asp Thr Glu Ala Val Pro Arg		
195	200	205
Ala Pro Ala Arg Pro Arg Glu Lys Pro Leu Ile Arg Ser Gln Ser Leu		
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<212> DNA

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<212> PRT

<213> Homo sapiens

<400> 3322

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His	Leu	Thr	Asn	Thr	Val	Phe	Ile	Asp	Arg	Ala	Leu	Ile	Val	Val	Pro
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Cys	Ala	Glu	Gly	Lys	Ile	Pro	Glu	Glu	Ser	Lys	Ala	Leu	Ser	Leu	Leu
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Leu	Gly	Glu	Ile	Pro	Gln	Pro	Pro	Leu	Met	Gly	Asn	Val	Asp	Pro	Ser
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<212> DNA
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420

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<211> 122

<212> PRT

<213> Homo sapiens

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			20						25				30		
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Pro	Asp	Glu	Gly	Gln	Glu	Leu	Glu	Glu	Val	Gln	Ala	Glu	Leu	Lys	
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Lys	Lys	Asp	Glu	Glu	Val	Ser	His	Gly	Thr	Val	Asp	Leu	Asp	Gln	Lys
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His Gln Gln Gln Met Ala Pro Ser Thr Leu Ser Gln Gln Asn Arg Pro
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Thr Gln Asn Pro Pro Ala Gly Leu Met Ser Met Pro Asn Ala Leu Thr
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Thr Gln Gln Gln Gln Gln Gln Lys Leu Arg Leu Gln Arg Ile Gln Met
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Glu Arg Glu Arg Ile Arg Met Arg Gln Glu Glu Leu Met Arg Gln Glu
100 105 110
Ala Ala Leu Cys Arg Gln Leu Pro Met Glu Ala Glu Thr Leu Ala Pro
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Val Gln Ala Ala Val Asn Pro Pro Thr Met Thr Pro Asp Met Arg Ser
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Ile Thr Asn Asn Ser Ser Asp Pro Phe Leu Asn Gly Gly Pro Tyr His
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Ser Arg Glu Gln Ser Thr Asp Ser Gly Leu Gly Leu Gly Cys Tyr Ser
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180 185 190
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<211> 521

<212> PRT

<213> Homo sapiens

<400> 3328

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305	310	315
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325	330	335
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340	345	350
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Lys Arg Met Gln Val Glu His Pro Glu Lys Ala Val Pro Arg Val Arg		
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450	455	460
Gly Tyr Val Ser Asp Thr Glu Thr Ser Val Val Trp Asn Asn Glu His		
465	470	475
Val Lys Thr Asp Trp Asp Arg Ala Lys Ser Gln Lys Met Arg Glu Gln		
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<211> 705

<212> DNA

<213> Homo sapiens

<400> 3329

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<212> PRT

<213> Homo sapiens

<400> 3330

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Asn	Ser	Thr	Phe	Ala	Trp	Phe	Trp	Asn	Asp	Arg	Arg	Leu	His	Ala	Glu
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Val	Phe	Val	Glu	Pro	Glu	Gly	Gly	Leu	Arg	Gly	Ile	Leu	Asp	Cys	Arg
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<212> DNA

<213> Homo sapiens

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50 55 60
Asp Lys Val Trp Val Lys Leu Ile Gly Arg Glu Met Lys Asn Asp Arg
65 70 75 80
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<212> DNA
<213> Homo sapiens

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<211> 672

<212> PRT

<213> Homo sapiens

<400> 3334

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Ile	Tyr	Glu	Ala	Gly	Ala	Gly	Asp	Arg	Met	Ala	Gly	Ala	Pro	Met	Ala
			20					25					30		
Ala	Ala	Val	Gln	Pro	Ala	Glu	Val	Thr	Val	Glu	Val	Gly	Glu	Asp	Leu
			35					40					45		
His	Met	His	His	Val	Arg	Asp	Arg	Glu	Met	Pro	Glu	Ala	Leu	Glu	Phe
	50					55					60				
Asn	Leu	Ser	Ala	Asn	Pro	Glu	Ser	Ser	Thr	Ile	Phe	Gln	Arg	Asn	Ser
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Gln	Thr	Glu	Ala	Leu	Glu	Phe	Asn	Pro	Ser	Ala	Asn	Pro	Glu	Ala	Ser
				85					90					95	
Thr	Ile	Phe	Gln	Arg	Asn	Ser	Gln	Thr	Asp	Val	Val	Glu	Ile	Arg	Arg
			100					105					110		
Ser	Asn	Cys	Thr	Asn	His	Val	Ser	Ala	Val	Arg	Phe	Ser	Gln	Gln	Tyr
			115					120					125		
Ser	Leu	Cys	Ser	Thr	Ile	Phe	Leu	Asp	Asp	Ser	Thr	Ala	Ile	Gln	His
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Leu	His	Ser	Phe	Ala	Val	Ser	Thr	Val	His	Ile	Met	Lys	Lys	Arg	Asn
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Leu	Gly	Asp	Tyr	Met	Lys	Asn	Ile	His	Lys	Lys	Glu	Ile	Asp	Leu	Gln
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<212> DNA
<213> Homo sapiens
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<210> 3336
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 <212> PRT
 <213> Homo sapiens

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 Pro Pro Pro Arg Ile Cys Pro Glu Thr Gly Leu Asp Ser Gln Asp Tyr
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 Arg Cys Ala Glu Cys Arg Ala Pro Ile Ser Leu Arg Gly Val Pro Ser
 20 25 30
 Glu Ala Arg Gln Cys Asp Tyr Thr Gly Gln Tyr Tyr Cys Ser Pro Cys
 35 40 45
 His Trp Asn Ala Leu Ala Val Ile Pro Ala Arg
 50 55

<210> 3337
 <211> 679
 <212> DNA
 <213> Homo sapiens

<400> 3337
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 aaaaagagaa agagagacac cccacagaga ggggggaagg aggttagatg gggcagtctt
 120
 agcttagcct ccaaagacac agatagagtg agagagagag acagagagag acacagagac
 180
 agacagagac caaaacagaa gcggcaaacg gcaaaaacga agcagaatca atgcaagtta
 240
 gagaaaaaaa taaaactaaa catcagagca gggaaaagtc atctactccg tatcacacct
 300
 gtgtattagc ttaaccagaa ataagctgga agaggagtgc agtagcctct cagcccccta
 360
 aagatgtttg tcataccccc tctttcaccc tctgagtcga gaggacacca agccaaacaa
 420
 actgtgcccc aaactgggtc atctagtcct cccaggtcct tccttgctaa ctcgaggaaa
 480
 caaggaaaac caactttgga tggcaacttc aacaaggtaa ccctccttcc ttcaatggcc
 540
 agactgatgc cactgacaa tggcttttag atgcttggac agcagactgt catgtcaaga
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ctgcccagac cccaccaca ctgtggaaaa gggcagcacc agaccactg gagatgaggc
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 tcttgagcca agtgctagc
 679

<210> 3338
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 3338
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 Lys Lys Gly Lys Lys Lys Arg Lys Arg Asp Thr Pro Gln Arg Gly Gly
 20 25 30
 Lys Glu Val Arg Trp Gly Ser Leu Ser Leu Ala Ser Lys Asp Thr Asp
 35 40 45
 Arg Val Arg Glu Arg Asp Arg Glu Arg His Arg Asp Arg Gln Arg Pro
 50 55 60
 Lys Gln Lys Arg Gln Thr Ala Lys Thr Lys Gln Asn Gln Cys Lys Leu
 65 70 75 80
 Glu Lys Lys Ile Lys Leu Asn Ile Arg Ala Gly Lys Ser His Leu Leu
 85 90 95
 Arg Ile Thr Pro Val Tyr
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<210> 3339
 <211> 1341
 <212> DNA
 <213> Homo sapiens

<400> 3339
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 120
 agaagccagt tccatccagg atccactatc tacacaccta tggtacaaca ttatatcaaa
 180
 tctgggtatct gaagaaaaga tacacattta atatgttcat ttaagttacg tttttgcag
 240
 aaagattaaa aattcattca cacaaaactc aaaaactgta ttaaaagttt gaatataaaa
 300
 ctcagatcca cctggaatga ctaaagaatg gaagttctgt atccacctgt gttaaaactg
 360
 gtaaatgtaa tgatatctgt taccaataaa acgcattcgt ttattcaatg taagtaagtt
 420
 atctaatttt aacaatatgg caccctaaaa accaactgta tttttatgat gaggcacttt
 480
 tgtagtgat gaaacaaaa gaacaaattt gctgcacact gatgccagcg attttcttca
 540
 gtgattttgg gtatatgcta tgtagtaagt tgcaacaaat accttgctca tttgtataca
 600
 actatccgat atatttttaa tatatatata tatatatggt cttctggctg tagtaatgca
 660

ctgtaaagct atttcacagt gcaaaatgat gaaaccagcc caaatgaagg ctgcataata
 720
 acaattctga tacaagaaaa tattgacaga gttactggaa cgtgtaacag tagttttttt
 780
 acttgctaga gtggacatac cccagtttta aagacaggga tgaaactctg ctttagtgcc
 840
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 900
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 960
 cctgtttggt gaagccaagg tgctggaaga actgcctgtg ttgcaatgaa gagacaaagg
 1020
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 1080
 tcctctgcta aggtcagagg tactggtgcg taggcgttcc ctggccagcc agtctgagat
 1140
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 1200
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 1260
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 1320
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 1341

<210> 3340

<211> 86

<212> PRT

<213> Homo sapiens

<400> 3340

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Ser	Val	Asn	Ile	Phe	Leu	Tyr	Gln	Asn	Cys	Tyr	Tyr	Ala	Ala	Phe	Ile
		20					25					30			
Trp	Ala	Gly	Phe	Ile	Ile	Leu	His	Cys	Glu	Ile	Ala	Leu	Gln	Cys	Ile
		35				40					45				
Thr	Thr	Ala	Arg	Arg	Thr	Tyr	Ile	Tyr	Ile	Tyr	Ile	Lys	Asn	Ile	Ser
	50				55				60						
Asp	Ser	Cys	Ile	Gln	Met	Ser	Lys	Val	Phe	Val	Ala	Thr	Tyr	Tyr	Ile
65				70				75					80		
Ala	Tyr	Thr	Gln	Asn	His										
				85											

<210> 3341

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3341

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 120

ctggagcatg accacagacc cattcagga ggctggcgga ctcttcatcc tggacagtcc
 180
 cttactgtat gtcaagtaaa gctgagaatg aagcggagag catcagacag aggagctggg
 240
 gaaacgtcgg ccagggccaa ggctctagga agtgggattt ctggaaataa tgcaaagaga
 300
 gctggaccat tcataccttg tccccgtctg ggcaactcac cggtgccaag catagtgcag
 360
 tgtttggcga ggaaagatgg caaggatgac ttctatcagc tgaagatcct gaccctggag
 420
 gagagggggg accaaggcat agagagccag gaagagcggc agggcaagat gctgctgcac
 480
 accgagtact cactgctgtc tctcctgcac acgcaggatg gcgtggtgca ccaccacggc
 540
 ctcttccagg accgcacctg tgaaatcgtt gaggacacag aatccagccg gatggttaag
 600
 aagatgaaga agcgcacctg cctcgtcctg gactgcctct gtgctcatga cttcagcgat
 660
 aagaccgctg acctcatcaa cctgcagcac tacgtcatca aggagaagag gctcagcgag
 720
 agggagactg tggtaatctt ctacgacgtg gtccgcgtgg tggaggccct gcaccagaaa
 780
 aatatcgtgc acagagacct gaagctgggg aacatggtgc tcaacaagag gacacatcgg
 840
 ataaccatca ccaacttctg cctcggaag catctggtga gcgaggggga cctgctgaag
 900
 gaccagagag ggagccctgc ctacatcagt cccgacgtgc tcagcggccg gccgtaccgt
 960
 ggcaagccca gtgacatgtg ggccctgggc gtggtgctct tcaccatgct gtatggccag
 1020
 ttcccccttct acgacagcat cccgcaggag ctcttccgca agatcaaggc tgccgagtat
 1080
 accattcctg aggatggacg gggttctgag aacaccgtgt gtctcatccg ga
 1132

<210> 3342

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3342

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Ala	Lys	Ala	Leu	Gly	Ser	Gly	Ile	Ser	Gly	Asn	Asn	Ala	Lys	Arg	Ala
		20						25					30		
Gly	Pro	Phe	Ile	Leu	Gly	Pro	Arg	Leu	Gly	Asn	Ser	Pro	Val	Pro	Ser
		35					40					45			
Ile	Val	Gln	Cys	Leu	Ala	Arg	Lys	Asp	Gly	Thr	Asp	Asp	Phe	Tyr	Gln
	50					55				60					
Leu	Lys	Ile	Leu	Thr	Leu	Glu	Glu	Arg	Gly	Asp	Gln	Gly	Ile	Glu	Ser
65					70				75				80		
Gln	Glu	Glu	Arg	Gln	Gly	Lys	Met	Leu	Leu	His	Thr	Glu	Tyr	Ser	Leu
			85					90					95		
Leu	Ser	Leu	Leu	His	Thr	Gln	Asp	Gly	Val	Val	His	His	His	Gly	Leu

100 105 110
 Phe Gln Asp Arg Thr Cys Glu Ile Val Glu Asp Thr Glu Ser Ser Arg
 115 120 125
 Met Val Lys Lys Met Lys Lys Arg Ile Cys Leu Val Leu Asp Cys Leu
 130 135 140
 Cys Ala His Asp Phe Ser Asp Lys Thr Ala Asp Leu Ile Asn Leu Gln
 145 150 155 160
 His Tyr Val Ile Lys Glu Lys Arg Leu Ser Glu Arg Glu Thr Val Val
 165 170 175
 Ile Phe Tyr Asp Val Val Arg Val Val Glu Ala Leu His Gln Lys Asn
 180 185 190
 Ile Val His Arg Asp Leu Lys Leu Gly Asn Met Val Leu Asn Lys Arg
 195 200 205
 Thr His Arg Ile Thr Ile Thr Asn Phe Cys Leu Gly Lys His Leu Val
 210 215 220
 Ser Glu Gly Asp Leu Leu Lys Asp Gln Arg Gly Ser Pro Ala Tyr Ile
 225 230 235 240
 Ser Pro Asp Val Leu Ser Gly Arg Pro Tyr Arg Gly Lys Pro Ser Asp
 245 250 255
 Met Trp Ala Leu Gly Val Val Leu Phe Thr Met Leu Tyr Gly Gln Phe
 260 265 270
 Pro Phe Tyr Asp Ser Ile Pro Gln Glu Leu Phe Arg Lys Ile Lys Ala
 275 280 285
 Ala Glu Tyr Thr Ile Pro Glu Asp Gly Arg Val Ser Glu Asn Thr Val
 290 295 300
 Cys Leu Ile Arg
 305

<210> 3343
 <211> 594
 <212> DNA
 <213> Homo sapiens

<400> 3343
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 120
 ttcagcatga actgggtcgt gggcagcgcg gacctggaga ttatcaacgc caccactggg
 180
 cggaggagct gtgggggccc atcccggctc tgcaagcacg tgctgtctgc acggtgggcg
 240
 cggctgtatg gcaggctgag cacacggaca ccagccctg gagacacgcc ctccatgtac
 300
 tgtgaggcca agctgggggc gcacacctac cagtctgtga aacagcagct gttcaaggcc
 360
 tttcagaagg ctggcctggg cacctgggtg aggaaccac cggagcagca gcagtttcta
 420
 ctgactctct aggtgcggg ctccctggctg ctggagctga gcgggacgct ggagggatgg
 480
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 594

<210> 3344
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 3344
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 Tyr Arg His Asn Arg Pro Leu Leu Ser Gly Val Ser Asp Thr Glu Ala
 20 25 30
 Arg Gln Pro Gly Lys Ser Pro Pro Phe Ser Met Asn Trp Val Val Gly
 35 40 45
 Ser Ala Asp Leu Glu Ile Ile Asn Ala Thr Thr Gly Arg Arg Ser Cys
 50 55 60
 Gly Gly Pro Ser Arg Leu Cys Lys His Val Leu Ser Ala Arg Trp Ala
 65 70 75 80
 Arg Leu Tyr Gly Arg Leu Ser Thr Arg Thr Pro Ser Pro Gly Asp Thr
 85 90 95
 Pro Ser Met Tyr Cys Glu Ala Lys Leu Gly Ala His Thr Tyr Gln Ser
 100 105 110
 Val Lys Gln Gln Leu Phe Lys Ala Phe Gln Lys Ala Gly Leu Gly Thr
 115 120 125
 Trp Val Arg Lys Pro Pro Glu Gln Gln Gln Phe Leu Leu Thr Leu
 130 135 140

<210> 3345
 <211> 1149
 <212> DNA
 <213> Homo sapiens

<400> 3345
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 120
 tcaccgtgag ctctttccaa ggggacgcca ccagtggggg cctgggcagg aggcagctga
 180
 ggtgttttcag gaaaaggctg aagatcaagg ctgtggtgtg aggactaccc actttaggga
 240
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 300
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 360
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 420
 cagtctgggc cgagacagca tgagcagggc cctggggagg aggtcccggg cgtcactcct
 480
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 600
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 660

gagcagtcgg agaagcagaa ggatgccgtg gtgcgactca tccacctccg gctgaagctc
 720
 caggagctga aggaccccaa tgaggatgag ccaaacatcc gaggctcctc tgagcaccgc
 780
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 gaactgaaca tctgccctga gacagggctg gacagccagg attaccgctg tgccgagtgc
 1020
 cggggcgccca tctctctgcg ggggtgtgccc agtgaggcca ggcagtgcga ctataccggc
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 1149

<210> 3346

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3346

Met	Glu	Tyr	Asp	Glu	Lys	Leu	Ala	Arg	Phe	Arg	Gln	Ala	His	Leu	Asn
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Pro	Phe	Asn	Lys	Gln	Ser	Gly	Pro	Arg	Gln	His	Glu	Gln	Gly	Pro	Gly
			20					25					30		
Glu	Glu	Val	Pro	Asp	Val	Thr	Pro	Glu	Glu	Ala	Leu	Pro	Glu	Leu	Pro
		35					40					45			
Pro	Gly	Glu	Pro	Glu	Phe	Arg	Cys	Pro	Glu	Arg	Val	Met	Asp	Leu	Gly
	50					55					60				
Leu	Ser	Glu	Asp	His	Phe	Ser	Arg	Pro	Val	Gly	Leu	Phe	Leu	Ala	Ser
				70						75					80
Asp	Val	Gln	Gln	Leu	Arg	Gln	Ala	Ile	Glu	Glu	Cys	Lys	Gln	Val	Ile
			85						90					95	
Leu	Glu	Leu	Pro	Glu	Gln	Ser	Glu	Lys	Gln	Lys	Asp	Ala	Val	Val	Arg
			100					105					110		
Leu	Ile	His	Leu	Arg	Leu	Lys	Leu	Gln	Glu	Leu	Lys	Asp	Pro	Asn	Glu
		115					120					125			
Asp	Glu	Pro	Asn	Ile	Arg	Val	Leu	Leu	Glu	His	Arg	Phe	Tyr	Lys	Glu
	130					135						140			
Lys	Ser	Lys	Ser	Val	Lys	Gln	Thr	Cys	Asp	Lys	Cys	Asn	Thr	Ile	Ile
				150						155					160
Trp	Gly	Leu	Ile	Gln	Thr	Trp	Tyr	Thr	Cys	Thr	Gly	Cys	Tyr	Tyr	Arg
			165						170					175	
Cys	His	Ser	Lys	Cys	Leu	Asn	Leu	Ile	Ser	Lys	Pro	Cys	Val	Ser	Ser
			180					185					190		
Lys	Val	Ser	His	Gln	Ala	Glu	Tyr	Glu	Leu	Asn	Ile	Cys	Pro	Glu	Thr
		195					200					205			
Gly	Leu	Asp	Ser	Gln	Asp	Tyr	Arg	Cys	Ala	Glu	Cys	Arg	Ala	Pro	Ile
	210					215					220				
Ser	Leu	Arg	Gly	Val	Pro	Ser	Glu	Ala	Arg	Gln	Cys	Asp	Tyr	Thr	Gly

225		230		235		240
Gln Tyr Tyr Cys Ser His Cys His Trp Asn Asp Leu Ala Val Ile Pro						
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Glu Ala Gly Val Cys Ser Arg						
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<210> 3347
 <211> 2267
 <212> DNA
 <213> Homo sapiens

<400> 3347
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 120
 ttgcctccag ccttccacct accgctgccca ggacctaccc tggccttccct ggtactcagc
 180
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 240
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 300
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 360
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 420
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 480
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 600
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 660
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 780
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 840
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 1260

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 1740
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 1920
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 1980
 gtaacccacc ctgtggcgct agtcgcagtg ctctggccaa cactatagca gggcttattc
 2040
 ttctccctca tgtgtagtga aacaaaatgt aacaccttgg gttcattcag ttccattccc
 2100
 tatgtctacc tgtgtcaata taattccctg atttgagggc agctctctc attttcccca
 2160
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 2220
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 2267
 <210> 3348
 <211> 288
 <212> PRT
 <213> Homo sapiens

<400> 3348
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 Lys Ile Glu Asp Thr Leu Cys Pro Phe Gly Phe Glu Val Tyr Pro Phe
 20 25 30
 Gln Val Ala Trp Tyr Asn Glu Leu Leu Pro Pro Ala Phe His Leu Pro
 35 40 45
 Leu Pro Gly Pro Thr Leu Ala Phe Leu Val Leu Ser Thr Pro Ala Met
 50 55 60
 Phe Asp Arg Ala Leu Lys Pro Phe Leu Gln Ser Cys His Leu Arg Met
 65 70 75 80
 Leu Thr Asp Pro Val Asp Gln Cys Val Ala Tyr His Leu Gly Arg Val
 85 90 95
 Gly Glu Ser Leu Pro Glu Leu Gln Ile Glu Ile Ile Ala Asp Tyr Glu
 100 105 110

Val His Pro Asn Arg Arg Pro Lys Ile Leu Ala Gln Thr Ala Ala His
 115 120 125
 Val Ala Gly Ala Ala Tyr Tyr Gln Arg Gln Asp Val Glu Ala Asp
 130 135 140
 Pro Trp Gly Asn Gln Arg Ile Ser Gly Val Cys Ile His Pro Arg Phe
 145 150 155 160
 Gly Gly Trp Phe Ala Ile Arg Gly Val Val Leu Leu Pro Gly Ile Glu
 165 170 175
 Val Pro Asp Leu Pro Pro Arg Lys Pro His Asp Cys Val Pro Thr Arg
 180 185 190
 Ala Asp Arg Ile Ala Leu Leu Glu Gly Phe Asn Phe His Trp Arg Asp
 195 200 205
 Trp Thr Tyr Arg Asp Ala Val Thr Pro Gln Glu Arg Tyr Ser Glu Glu
 210 215 220
 Gln Lys Ala Tyr Phe Ser Thr Pro Pro Ala Gln Arg Leu Ala Leu Leu
 225 230 235 240
 Gly Leu Ala Gln Pro Ser Glu Lys Pro Ser Ser Pro Ser Pro Asp Leu
 245 250 255
 Pro Phe Thr Thr Pro Ala Pro Lys Lys Pro Gly Asn Pro Ser Arg Ala
 260 265 270
 Arg Ser Trp Leu Ser Pro Arg Val Ser Pro Pro Ala Ser Pro Gly Pro
 275 280 285

<210> 3349

<211> 1132

<212> DNA

<213> Homo sapiens

<400> 3349

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 120
 tcggcccaaa gaaaacctgg agctcatcct gacgcagtcg gtggagagta aggccccggg
 180
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 240
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 300
 aagaagctgt ttgaagagga gaaattgctg agacaagaag gaaaattaga gaagatccag
 360
 accaaggcag gtgaggcgac agtgaaattt ctaaaaagct gtcgcctgga ggtagggatg
 420
 aagaacaatg tcaaatggga gctgaaccct gaaatagttg cccgccactt ctttaagaat
 480
 cttggtgttg tggttgcccc acatacatta aagttaccag cagagcctat cacacggtgg
 540
 ggcgagtatt ggtgtgaggt gacggtaaat gggcttgata ctgtgagagt gcctatgtct
 600
 gtcgtgaact ttgagaagcc caagaccaa agatataagt actggttagc ccagcaagct
 660
 gccaaaggcta tggccccac cagccccag atctaaatct actctccctc caaggcagca
 720

aagcagaatc gggagcagtg gagcagaaat gtgcaagcac cctgatctca ctcccagctc
780
tgaccaaata cagaatttta gagaacatct gaagacatca gactgcactg cgtatacatg
840
ttgaattctt catttttgcc atctttaact gtcactcactg gggcagggaa gtcctgttcc
900
agaagtacca ggctgtagat ttgataagct agatgcagta gaccgaaacc atccaaaacc
960
tgtttagctt cttcctccat tggagtttat tgggacaaac aggagagcca gccattgtct
1020
ccagtacttg cctcattctc atcatccaaa ctgaacattt gtatcccaag cagaaataaa
1080
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1132

<210> 3350
<211> 174
<212> PRT
<213> Homo sapiens

<400> 3350
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1 5 10 15
Asp Leu Val Ser Val Lys Lys Ser Leu Gly Arg Asn Arg Leu Leu Pro
20 25 30
Gln Gly Leu Ala Val Tyr Ala Ser Pro Glu Asn Lys Lys Leu Phe Glu
35 40 45
Glu Glu Lys Leu Leu Arg Gln Glu Gly Lys Leu Glu Lys Ile Gln Thr
50 55 60
Lys Ala Gly Glu Ala Thr Val Lys Phe Leu Lys Ser Cys Arg Leu Glu
65 70 75 80
Val Gly Met Lys Asn Asn Val Lys Trp Glu Leu Asn Pro Glu Ile Val
85 90 95
Ala Arg His Phe Phe Lys Asn Leu Gly Val Val Val Ala Pro His Thr
100 105 110
Leu Lys Leu Pro Ala Glu Pro Ile Thr Arg Trp Gly Glu Tyr Trp Cys
115 120 125
Glu Val Thr Val Asn Gly Leu Asp Thr Val Arg Val Pro Met Ser Val
130 135 140
Val Asn Phe Glu Lys Pro Lys Thr Lys Arg Tyr Lys Tyr Trp Leu Ala
145 150 155 160
Gln Gln Ala Ala Lys Ala Met Ala Pro Thr Ser Pro Gln Ile
165 170

<210> 3351
<211> 1422
<212> DNA
<213> Homo sapiens

<400> 3351
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cttgaggaat actccatacc tgagtagaca gccatgtggc catcgagct actaattttc
120

atgatgctct tagctccaat aattcatggt ggcaagcaca gtgaacgaca tcctgccctc
 180
 gctgctgcgc cgcgatgcgc tgagcgccgc caaggagggtg ttgtaccacc tggacatcta
 240
 cttcagcagc cagctgcaga gcgcgcccgt gcccatcgtg gacaagggcc ccgtggagct
 300
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 360
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 420
 ggactctgtt cggcagatta ttttttcac ccttttcagc cctcaagga acaaagccga
 480
 tgacagccgg atgagcttgt tgggaaaact ggtctccatg gcggtggctg tgtgtcgaat
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 600
 gttagccaag gccctttag atgactactg ctgtttggtg ccgggatcca ttcagacgct
 660
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 720
 gctctatgac ctgtcatcag atgacctcat tccacctatg gacttgcttg aaatgattgt
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 840
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 1140
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 1200
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 1260
 cagagagat gaccttagaa ccttgttctc caggetcccc cgtaataacc tcctccagct
 1320
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 1380
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 1422

<210> 3352

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3352

Met Trp Pro Ser Gln Leu Leu Ile Phe Met Met Leu Leu Ala Pro Ile

1

5

10

15

Ile His Gly Gly Lys His Ser Glu Arg His Pro Ala Leu Ala Ala Ala

```

                20                25                30
Pro Arg Cys Ala Glu Arg Arg Gln Gly Gly Val Val Pro Pro Gly His
      35                40                45
Leu Leu Gln Gln Pro Ala Ala Glu Arg Ala Ala Ala His Arg Gly Gln
      50                55                60
Gly Pro Arg Gly Ala Ala Gly Gly Val Arg Val Pro Gly Ala Gln Gly
65                70                75                80
Ala Gln Arg Ala Ala Gln Glu Thr Glu Phe Pro Ser Gly Ala Ser Thr
      85                90                95
Ser

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<210> 3353

<211> 420

<212> DNA

<213> Homo sapiens

<400> 3353

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120
ggctccctac ctgacctcac caacctgcac tttccccac cactgcccac cccctggac
180
cctgaagaga cagcctaccc tagcctgagt gggggcaaca gtacctcaa tttgaccac
240
accatgactc acctgggcat cagcaggggc atgggccttg gccaggcta tgatgcacca
300
gggcgtcccc ctggatacca gtaaactgtc cactgaccag cggttacccc cataccata
360
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420

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<210> 3354

<211> 107

<212> PRT

<213> Homo sapiens

<400> 3354

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Xaa Lys Leu Ser Ser Ser Ser Arg Pro Arg Ser Cys Glu Val Pro
1                5                10                15
Gly Ile Asn Ile Phe Pro Ser Pro Asp Gln Pro Ala Asn Val Pro Val
      20                25                30
Leu Pro Pro Ala Met Asn Thr Gly Gly Ser Leu Pro Asp Leu Thr Asn
      35                40                45
Leu His Phe Pro Pro Pro Leu Pro Thr Pro Leu Asp Pro Glu Glu Thr
      50                55                60
Ala Tyr Pro Ser Leu Ser Gly Gly Asn Ser Thr Ser Asn Leu Thr His
65                70                75                80
Thr Met Thr His Leu Gly Ile Ser Arg Gly Met Gly Leu Gly Pro Gly
      85                90                95
Tyr Asp Ala Pro Gly Arg Pro Pro Gly Tyr Gln
      100                105

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<210> 3355
 <211> 474
 <212> DNA
 <213> Homo sapiens

<400> 3355
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 gtaagattat ctccagccaa aatgtcaacc aagaattcta cagatctagt tgaatatgtt
 120
 gacaagagtc atgcttttct ccccatcatt ccaaacaccc agagaggtca gctagaagac
 180
 agactgaaca accaggcgcg taccatagct ttccttcttg aacaagcctt ccgcatcaag
 240
 gaggacatct ctgcttgccct gcaggggacc catggctttc gaaaagagga atcgctcgcc
 300
 aggaagttac tggaaagcca catccagacc atcaccagca tcgtcaaaaa actcagccaa
 360
 aatattgaga ttttagaaga ccaaataaga gctcgagatc aggcggccac aggaactaac
 420
 tttgcagtac acgagataaa catcaaacac ctacaaggag ttgggagatc tttc
 474

<210> 3356
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 3356
 Met Ser Thr Lys Asn Ser Thr Asp Leu Val Glu Tyr Val Asp Lys Ser
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 20 25 30
 Asp Arg Leu Asn Asn Gln Ala Arg Thr Ile Ala Phe Leu Leu Glu Gln
 35 40 45
 Ala Phe Arg Ile Lys Glu Asp Ile Ser Ala Cys Leu Gln Gly Thr His
 50 55 60
 Gly Phe Arg Lys Glu Glu Ser Leu Ala Arg Lys Leu Leu Glu Ser His
 65 70 75 80
 Ile Gln Thr Ile Thr Ser Ile Val Lys Lys Leu Ser Gln Asn Ile Glu
 85 90 95
 Ile Leu Glu Asp Gln Ile Arg Ala Arg Asp Gln Ala Ala Thr Gly Thr
 100 105 110
 Asn Phe Ala Val His Glu Ile Asn Ile Lys His Leu Gln Gly Val Gly
 115 120 125
 Arg Ser Phe
 130

<210> 3357
 <211> 2268
 <212> DNA
 <213> Homo sapiens

<400> 3357

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agcagccatt atggatttgg atgtgctctt tatacccatg tctctaattg cagatggagg
120
agggcctata aaaataattc cttcttgctt acaaagttca gcaaattcca tgttttctga
180
aagaaaaccg catcctggat ggatagcctg tgcagcagag gtcttggcca cttgaatgat
240
tttctccata gataggtagc tctgctggga ggaacggggt tggcgtgtgg gacgcagctg
300
cctctgtact ggggagtcac ggagtggcgg ggctccaggg acatggcggc ggcctctgcg
360
gtgtcgggtgc tgetggtggc ggcggagagg aaccgggtggc atcgtctccc gagcctgctc
420
ctgccgccga ggacatgggt gtggaggcaa agaaccatga agtacacaac agccacagga
480
agaaacatta ccaaggtcct cattgcaaac agaggagaaa ttgcctgcag ggtgatgcgc
540
acagccaaaa aactgggtgt acagactgtg gcggtttata gtgaggctga cagaaattcc
600
atgcatgtag atatggcaga tgaagcatat tccatcgcc ccgctccctc ccagcagagc
660
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720
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840
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960
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1020
cagttagagt cagcacggag agaagctaag aagtctttca atgatgatgc tatgctgac
1080
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1140
aatgctgtgt acttggttga aagagactgt agtgtgcaga ggcgacatca gaagatcatt
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1260
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1320
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1380
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1440
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tatgcagaag atcctagcaa taacttcatt cctgtggcag gccattagt gcacctctct
1560
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1620

tccgtgcatt atgaccccat gattgcgaag ctggctcgtgt gggcagcaga tcgccaggcg
 1680
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 1740
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 1860
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 1920
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 1980
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 2040
 taatcaacca ttccataact catgtaatct aggcatactc tggagttatt acaggtttgg
 2100
 ttccagacca ctacaataaa atgtagccat agctgtaacg tataaccatg atgggtctta
 2160
 tagcatgcag attgaagata aaactttcca agtccttggt aatctttaca gcgagggaga
 2220
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 2268

<210> 3358

<211> 493

<212> PRT

<213> Homo sapiens

<400> 3358

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Asp	Met	Ala	Asp	Glu	Ala	Tyr	Ser	Ile	Gly	Pro	Ala	Pro	Ser	Gln	Gln
			20						25				30		
Ser	Tyr	Leu	Ser	Met	Glu	Lys	Ile	Ile	Gln	Val	Ala	Lys	Thr	Ser	Ala
		35				40						45			
Ala	Gln	Ala	Ile	His	Pro	Gly	Cys	Gly	Phe	Leu	Ser	Glu	Asn	Met	Glu
		50				55					60				
Phe	Ala	Glu	Leu	Cys	Lys	Gln	Glu	Gly	Ile	Ile	Phe	Ile	Gly	Pro	Pro
65					70					75				80	
Pro	Ser	Ala	Ile	Arg	Asp	Met	Gly	Ile	Lys	Ser	Thr	Ser	Lys	Ser	Ile
				85					90					95	
Met	Ala	Ala	Ala	Gly	Val	Pro	Val	Val	Glu	Gly	Tyr	His	Gly	Glu	Asp
			100						105					110	
Gln	Ser	Asp	Gln	Cys	Leu	Lys	Glu	His	Ala	Arg	Arg	Ile	Gly	Tyr	Pro
		115					120					125			
Val	Met	Ile	Lys	Ala	Val	Arg	Gly	Gly	Gly	Gly	Lys	Gly	Met	Arg	Ile
		130				135						140			
Val	Arg	Ser	Glu	Gln	Glu	Phe	Gln	Glu	Gln	Leu	Glu	Ser	Ala	Arg	Arg
145					150					155				160	
Glu	Ala	Lys	Lys	Ser	Phe	Asn	Asp	Asp	Ala	Met	Leu	Ile	Glu	Lys	Phe
				165					170					175	
Val	Asp	Thr	Pro	Arg	His	Val	Glu	Val	Gln	Val	Phe	Gly	Asp	His	His
			180						185					190	
Gly	Asn	Ala	Val	Tyr	Leu	Phe	Glu	Arg	Asp	Cys	Ser	Val	Gln	Arg	Arg

195	200	205
His Gln Lys Ile Ile Glu Glu Ala Pro Ala Pro Gly Ile Lys Ser Glu		
210	215	220
Val Arg Lys Lys Leu Gly Glu Ala Ala Val Arg Ala Ala Lys Ala Val		
225	230	235
Asn Tyr Val Gly Ala Gly Thr Val Glu Phe Ile Met Asp Ser Lys His		
245	250	255
Asn Phe Cys Phe Met Glu Met Asn Thr Arg Leu Gln Val Glu His Pro		
260	265	270
Val Thr Glu Met Ile Thr Gly Thr Asp Leu Val Glu Trp Gln Leu Arg		
275	280	285
Ile Ala Ala Gly Glu Lys Ile Pro Leu Ser Gln Glu Glu Ile Thr Leu		
290	295	300
Gln Gly His Ala Phe Glu Ala Arg Ile Tyr Ala Glu Asp Pro Ser Asn		
305	310	315
Asn Phe Met Pro Val Ala Gly Pro Leu Val His Leu Ser Thr Pro Arg		
325	330	335
Ala Asp Pro Ser Thr Arg Ile Glu Thr Gly Val Arg Gln Gly Asp Glu		
340	345	350
Val Ser Val His Tyr Asp Pro Met Ile Ala Lys Leu Val Val Trp Ala		
355	360	365
Ala Asp Arg Gln Ala Ala Leu Thr Lys Leu Arg Tyr Ser Leu Arg Gln		
370	375	380
Tyr Asn Ile Val Gly Leu His Thr Asn Ile Asp Phe Leu Leu Asn Leu		
385	390	395
Ser Gly His Pro Glu Phe Glu Ala Gly Asn Val His Thr Asp Phe Ile		
405	410	415
Pro Gln His His Lys Gln Leu Leu Leu Ser Arg Lys Ala Ala Ala Lys		
420	425	430
Glu Ser Leu Cys Gln Ala Ala Leu Gly Leu Ile Leu Lys Glu Lys Ala		
435	440	445
Met Thr Asp Thr Phe Thr Leu Gln Ala His Asp Gln Phe Ser Pro Phe		
450	455	460
Ser Ser Ser Ser Gly Arg Arg Leu Asn Ile Ser Tyr Thr Arg Asn Met		
465	470	475
Thr Leu Lys Asp Gly Lys Asn Ser Phe Arg Leu Leu Gly		
485	490	

<210> 3359

<211> 652

<212> DNA

<213> Homo sapiens

<400> 3359

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120
ggctagacag ttactgtctc agctctagga tgtgcgttct tccactagaa gctcttctga
180
gggaggtaat taaaaaacag tggaatggaa aaacagtgtc gtagtcatcc tgtaatatgc
240
tccttgtaa caatgtatac attcctgcta ggtgccatat tcattgcttt aagctcaagt
300

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cgcatcttac tagtgaagta ttctgccaat gaagaaaaca agtatgatta tcttccaact
 360
 actgtgaatg tgtgctcaga actggtgaag ctagttttct gtgtgcttgt gtcattctgt
 420
 gttataaaga aagatcatca aagtagaaat ttgaaatatg cttcctggaa ggaattctct
 480
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 540
 tatgtcctgt cctatcttca accagccatg gctgttatct tctcaaattt tagcattata
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 652

<210> 3360
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 3360
 Met Glu Lys Gln Cys Cys Ser His Pro Val Ile Cys Ser Leu Ser Thr
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 Met Tyr Thr Phe Leu Leu Gly Ala Ile Phe Ile Ala Leu Ser Ser Ser
 20 25 30
 Arg Ile Leu Leu Val Lys Tyr Ser Ala Asn Glu Glu Asn Lys Tyr Asp
 35 40 45
 Tyr Leu Pro Thr Thr Val Asn Val Cys Ser Glu Leu Val Lys Leu Val
 50 55 60
 Phe Cys Val Leu Val Ser Phe Cys Val Ile Lys Lys Asp His Gln Ser
 65 70 75 80
 Arg Asn Leu Lys Tyr Ala Ser Trp Lys Glu Phe Ser Asp Phe Met Lys
 85 90 95
 Trp Ser Ile Pro Ala Phe Leu Tyr Phe Leu Asp Asn Leu Ile Val Phe
 100 105 110
 Tyr Val Leu Ser Tyr Leu Gln Pro Ala Met Ala Val Ile Phe Ser Asn
 115 120 125
 Phe Ser Ile Ile Thr Thr Ala Leu Leu Phe Arg Ile Val Leu Lys Arg
 130 135 140
 Arg Leu Asn Trp Ile
 145

<210> 3361
 <211> 1040
 <212> DNA
 <213> Homo sapiens

<400> 3361
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 120
 ggagtcgcct gcgcgcgcag cggaggccag tgcgccggcg catagcgagc ccgggtctgt
 180
 gatcgccgag gcgggagtga agatagtcca agtcctaaga gacagcgctt ctctcattca
 240

gtcttttgatt atacatcagc atcaccagct cctcaccac caatgcgacc atgggagatg
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 360
 tgcaacacac ctgcacgcaa cagaagaagt cctcctgtca ggcgccagag aggaagaagg
 420
 gatcgtctgt ctcgacataa ttccattagt caagatgaaa actatcacca tctcccttac
 480
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 540
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 600
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 720
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 780
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 840
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 900
 ccaggccagt ttgtcccttt ccaaacacag caatcacgat cgcctctgca aaggatagaa
 960
 aatgaagtgg aactcttagg agaacatctt ccaggagccc acccccagca ccccatctg
 1020
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 1040

<210> 3362

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3362

Met Arg Pro Trp Glu Met Thr Ser Asn Arg Gln Pro Pro Ser Val Arg
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 20 25 30
 Asn Arg Arg Ser Pro Pro Val Arg Arg Gln Arg Gly Arg Arg Asp Arg
 35 40 45
 Leu Ser Arg His Asn Ser Ile Ser Gln Asp Glu Asn Tyr His His Leu
 50 55 60
 Pro Tyr Ala Gln Gln Gln Ala Ile Glu Glu Pro Arg Ala Phe His Pro
 65 70 75 80
 Pro Asn Val Ser Pro Arg Leu Leu His Pro Ala Ala His Pro Pro Gln
 85 90 95
 Gln Asn Ala Val Met Val Asp Ile His Asp Gln Leu His Gln Gly Thr
 100 105 110
 Val Pro Val Ser Tyr Thr Val Thr Val Ala Pro His Gly Ile Pro
 115 120 125
 Leu Cys Thr Gly Gln His Ile Pro Ala Cys Ser Thr Gln Gln Val Pro
 130 135 140
 Gly Cys Ser Val Val Phe Ser Gly Gln His Leu Pro Val Cys Ser Val

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145          150          155          160
Pro Pro Pro Met Leu Gln Ala Cys Ser Val Gln His Leu Pro Val Pro
          165          170          175
Tyr Ala Ala Phe Pro Pro Leu Ile Ser Ser Asp Pro Phe Leu Ile His
          180          185          190
Pro Pro His Leu Ser Pro His His Pro Pro His Leu Pro Pro Pro Gly
          195          200          205
Gln Phe Val Pro Phe Gln Thr Gln Gln Ser Arg Ser Pro Leu Gln Arg
          210          215          220
Ile Glu Asn Glu Val Glu Leu Leu Gly Glu His Leu Pro Gly Ala His
225          230          235          240
Pro Gln His Pro His Leu Leu Ile Asn Ile Ser Thr
          245          250

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<210> 3363

<211> 718

<212> DNA

<213> Homo sapiens

<400> 3363

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120
gtagctcagg agtgtctccg gagccactg gagaagcccc ccaacggcct cctcttcccc
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240
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300
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<210> 3364

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3364

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Met Gly His Trp Ser Leu Phe Arg Phe Ala Gln Ser Ser Arg Pro Ser
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Ala Leu Gln Ala Thr His Pro Pro Ala Ala His Gly Gly Pro Gly Thr

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<210> 3365
<211> 2389
<212> DNA
<213> Homo sapiens
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2545

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960
tgtgctgatg ctgtctctaa ggatgaactt caaagggata aagtggtaga agatgatgaa
1020
gatgactttc ctacaacgcg ttctgatggg gacttcttgc atagtaccaa cggcaataaa
1080
gaaaagttat ttccacatgt gacaccaaaa ggaattaatg gtatagactt taaaggggaa
1140
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1200
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1260
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1320
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1380
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1440
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1500
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1560
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1620
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1680
ggagaaatga aggtatacag aagagaagta gaagaaaatg ggattgttct ggatccttta
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1800
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1860
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2100
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2160
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2220
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2280
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2389

<210> 3366

<211> 624

<212> PRT

<213> Homo sapiens

<400> 3366

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Met Ser Asp Asn Gln Asn Trp Asn Ser Ser Gly Ser Glu Glu Asp Pro
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Glu Thr Glu Ser Gly Pro Pro Val Glu Arg Cys Gly Val Leu Ser Lys
          20           25           30
Trp Thr Asn Tyr Ile His Gly Trp Gln Asp Arg Trp Val Val Leu Lys
          35           40           45
Asn Asn Ala Leu Ser Tyr Tyr Lys Ser Glu Asp Glu Thr Glu Tyr Gly
 50           55           60
Cys Arg Gly Ser Ile Cys Leu Ser Lys Ala Val Ile Thr Pro His Asp
65           70           75           80
Phe Asp Glu Cys Arg Phe Asp Ile Ser Val Asn Asp Ser Val Trp Tyr
          85           90           95
Leu Arg Ala Gln Asp Pro Asp His Arg Gln Gln Trp Ile Asp Ala Ile
          100          105          110
Glu Gln His Lys Thr Glu Ser Gly Tyr Gly Ser Glu Ser Ser Leu Arg
          115          120          125
Arg His Gly Ser Met Val Ser Leu Val Ser Gly Ala Ser Gly Tyr Ser
          130          135          140
Ala Thr Ser Thr Ser Ser Phe Lys Lys Gly His Ser Leu Arg Glu Lys
          145          150          155          160
Leu Ala Glu Met Glu Thr Phe Arg Asp Ile Leu Cys Arg Gln Val Asp
          165          170          175
Thr Leu Gln Lys Tyr Phe Asp Ala Cys Ala Asp Ala Val Ser Lys Asp
          180          185          190
Glu Leu Gln Arg Asp Lys Val Val Glu Asp Asp Glu Asp Asp Phe Pro
          195          200          205
Thr Thr Arg Ser Asp Gly Asp Phe Leu His Ser Thr Asn Gly Asn Lys
          210          215          220
Glu Lys Leu Phe Pro His Val Thr Pro Lys Gly Ile Asn Gly Ile Asp
          225          230          235          240
Phe Lys Gly Glu Ala Ile Thr Phe Lys Ala Thr Thr Ala Gly Ile Leu
          245          250          255
Ala Thr Leu Ser His Cys Ile Glu Leu Met Val Lys Arg Glu Asp Ser
          260          265          270
Trp Gln Lys Arg Leu Asp Lys Glu Thr Glu Lys Lys Arg Arg Thr Glu
          275          280          285
Glu Ala Tyr Lys Asn Ala Met Thr Glu Leu Lys Lys Lys Ser His Phe
          290          295          300
Gly Gly Pro Asp Tyr Glu Glu Gly Pro Asn Ser Leu Ile Asn Glu Glu
          305          310          315          320
Glu Phe Phe Asp Ala Val Glu Ala Ala Leu Asp Arg Gln Asp Lys Ile
          325          330          335
Glu Glu Gln Ser Gln Ser Glu Lys Val Arg Leu His Trp Pro Thr Ser
          340          345          350
Leu Pro Ser Gly Asp Ala Phe Ser Ser Val Gly Thr His Arg Phe Val
          355          360          365
Gln Lys Pro Tyr Ser Arg Ser Ser Ser Met Ser Ser Ile Asp Leu Val
          370          375          380
Ser Ala Ser Asp Asp Val His Arg Phe Ser Ser Gln Val Glu Glu Met

```


385		390		395		400									
Val	Gln	Asn	His	Met	Thr	Tyr	Ser	Leu	Gln	Asp	Val	Gly	Gly	Asp	Ala
				405					410					415	
Asn	Trp	Gln	Leu	Val	Val	Glu	Glu	Gly	Glu	Met	Lys	Val	Tyr	Arg	Arg
			420					425						430	
Glu	Val	Glu	Glu	Asn	Gly	Ile	Val	Leu	Asp	Pro	Leu	Lys	Ala	Thr	His
		435					440						445		
Ala	Val	Lys	Gly	Val	Thr	Gly	His	Glu	Val	Cys	Asn	Tyr	Phe	Trp	Asn
	450					455					460				
Val	Asp	Val	Arg	Asn	Asp	Trp	Glu	Thr	Thr	Ile	Glu	Asn	Phe	His	Val
465					470					475					480
Val	Glu	Thr	Leu	Ala	Asp	Asn	Ala	Ile	Ile	Ile	Tyr	Gln	Thr	His	Lys
			485					490						495	
Arg	Val	Trp	Pro	Ala	Ser	Gln	Arg	Asp	Val	Leu	Tyr	Leu	Ser	Val	Ile
			500					505					510		
Arg	Lys	Ile	Pro	Ala	Leu	Thr	Glu	Asn	Asp	Pro	Glu	Thr	Trp	Ile	Val
		515					520					525			
Cys	Asn	Phe	Ser	Val	Asp	His	Asp	Ser	Ala	Pro	Leu	Asn	Asn	Arg	Cys
	530					535					540				
Val	Arg	Ala	Lys	Ile	Asn	Val	Ala	Met	Ile	Cys	Gln	Thr	Leu	Val	Ser
545				550						555					560
Pro	Pro	Glu	Gly	Asn	Gln	Glu	Ile	Ser	Arg	Asp	Asn	Ile	Leu	Cys	Lys
			565					570					575		
Ile	Thr	Tyr	Val	Ala	Asn	Val	Asn	Pro	Gly	Gly	Trp	Ala	Pro	Ala	Ser
			580				585					590			
Val	Leu	Arg	Ala	Val	Ala	Lys	Arg	Glu	Tyr	Pro	Lys	Phe	Leu	Lys	Arg
		595					600					605			
Phe	Thr	Ser	Tyr	Val	Gln	Glu	Lys	Thr	Ala	Gly	Lys	Pro	Ile	Leu	Phe
	610					615					620				

<210> 3367

<211> 366

<212> DNA

<213> Homo sapiens

<400> 3367

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gagaattacg ccacagaggt gttggaggct ggcacgtgg catctcagga gcacggaggg
120

tgccttcccc acttcaggcc tcttagtgtc aaggatgtga gaggcaaggg ctgctgggag
180

agtattttac ggactgaagg aggcgtgcc cctgccctgc cctcctactg gtggaggaag
240

gaggtgctgg gagccccaca actcagggcc ccccgacgcc cagtaaggcc actgtacacc
300

cctcctgacc cagaccataa ccagcctccg attgtgcttt tgaccctgtt tccttcaggc
360

accagg

366

<210> 3368

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3368

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Met Thr Glu Asn Tyr Ala Thr Glu Val Leu Glu Ala Gly Ile Val Ala
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Ser Gln Glu His Gly Gly Cys Leu Pro His Phe Arg Pro Leu Ser Val
          20             25             30
Lys Asp Val Arg Gly Lys Gly Cys Trp Glu Ser Ile Leu Arg Thr Glu
          35             40             45
Gly Gly Val Pro Pro Ala Leu Pro Ser Tyr Trp Trp Arg Lys Glu Val
          50             55             60
Leu Gly Ala Pro Gln Leu Arg Ala Pro Arg Arg Pro Val Arg Pro Leu
65             70             75             80
Tyr Thr Pro Pro Asp Pro Asp His Asn Gln Pro Pro Ile Val Leu Leu
          85             90             95
Thr Leu Phe Pro Ser Gly Thr Arg
          100

```

<210> 3369

<211> 1405

<212> DNA

<213> Homo sapiens

<400> 3369

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gataaggagc agaaaaatca ggaaaactgt ggtgcaaaga agaataaaaa gaagaggaaa
120
aagggtttat ataatgccaa taaaaatgat gattatgaca acgaggagat cttaacctat
180
gaggaaatgt cactttatca tcagccagca aataggaaga gacctatcat cttgattggt
240
ccacagaact gtggccagaa tgaattgcgt cagaggctca tgaacaaaga aaaggaccgc
300
tttgcattctg cagttcctca tacaaccggg agtaggcgag accaagaagt agccggtaga
360
gattaccact ttgtttcgcg gcaagcattc gaggcagaca tagcagctgg aaagttcatt
420
gagcatgggtg aatttgagaa gaatttgtat ggaactagca tagattctgt acggcaagtg
480
atcaactctg gcaaaatatg tcttttaagt cttcgtacac agtcattgaa gactctccgg
540
aattcagatt tgaaaccata tattatcttc attgcacccc cttcacaaga aagacttcgg
600
gcattattgg ccaagaagg caagaatcca aagcctgaag agttgagaga aatcattgag
660
aagacaagag agatggagca gaacaatggc cactactttg atacggcaat tgtgaattcc
720
gatcttgata aagcctatca ggaattgctt aggttaatta acaaacttga tactgaacct
780
cagtgggtac catccacttg gctgaggtga aagaaacatc cattctgtgg catgttggac
840
ttgatctggc aaaaactgcc aataggagga ctgcccagca ctgcagcaag attgaggata
900

```

agatggaagg cagcagtata agctgtagat ctgttcttag atctcttgaa ttagtgagac
 960
 gacagttccc ttaggcagtt tgtgcatggc atcctttatt ctctatacat ggcttttagcg
 1020
 gttcttgccct ctttttggga ttctaaatgg aagctttcaa cagagcattc ctttttgtcc
 1080
 tgttaaaaacc ttttgttttc acctaaaccc tttctgctta gttgtatctc tgtgaaaaac
 1140
 ttgtatacac aagcgtccat gtctcacaca aatattgatg tgattattct taagtgttaa
 1200
 atcattaaca cttaaatgac ttcattggga atattgagca gagggactgt gcttctatgc
 1260
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 1380
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 1405

<210> 3370

<211> 269

<212> PRT

<213> Homo sapiens

<400> 3370

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Thr	Ile	Glu	Glu	Asp	Lys	Glu	Gln	Lys	Asn	Gln	Glu	Asn	Cys	Gly	Ala
			20					25					30		
Lys	Lys	Asn	Lys	Lys	Lys	Arg	Lys	Lys	Val	Leu	Tyr	Asn	Ala	Asn	Lys
		35					40					45			
Asn	Asp	Asp	Tyr	Asp	Asn	Glu	Glu	Ile	Leu	Thr	Tyr	Glu	Glu	Met	Ser
	50					55					60				
Leu	Tyr	His	Gln	Pro	Ala	Asn	Arg	Lys	Arg	Pro	Ile	Ile	Leu	Ile	Gly
65					70					75				80	
Pro	Gln	Asn	Cys	Gly	Gln	Asn	Glu	Leu	Arg	Gln	Arg	Leu	Met	Asn	Lys
			85					90						95	
Glu	Lys	Asp	Arg	Phe	Ala	Ser	Ala	Val	Pro	His	Thr	Thr	Arg	Ser	Arg
			100					105					110		
Arg	Asp	Gln	Glu	Val	Ala	Gly	Arg	Asp	Tyr	His	Phe	Val	Ser	Arg	Gln
			115				120					125			
Ala	Phe	Glu	Ala	Asp	Ile	Ala	Ala	Gly	Lys	Phe	Ile	Glu	His	Gly	Glu
	130					135					140				
Phe	Glu	Lys	Asn	Leu	Tyr	Gly	Thr	Ser	Ile	Asp	Ser	Val	Arg	Gln	Val
145				150						155				160	
Ile	Asn	Ser	Gly	Lys	Ile	Cys	Leu	Leu	Ser	Leu	Arg	Thr	Gln	Ser	Leu
			165					170						175	
Lys	Thr	Leu	Arg	Asn	Ser	Asp	Leu	Lys	Pro	Tyr	Ile	Ile	Phe	Ile	Ala
			180					185					190		
Pro	Pro	Ser	Gln	Glu	Arg	Leu	Arg	Ala	Leu	Leu	Ala	Lys	Glu	Gly	Lys
			195				200					205			
Asn	Pro	Lys	Pro	Glu	Glu	Leu	Arg	Glu	Ile	Ile	Glu	Lys	Thr	Arg	Glu
	210					215					220				
Met	Glu	Gln	Asn	Asn	Gly	His	Tyr	Phe	Asp	Thr	Ala	Ile	Val	Asn	Ser

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<210> 3371
<211> 790
<212> DNA
<213> Homo sapiens
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<210> 3372
<211> 198
<212> PRT
<213> Homo sapiens
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2551

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Glu Val Val Asp Gly Pro Asp Ser Glu Ala Asp Lys Asp Gln His Pro		80
	85	90
Glu Asn Lys Pro Ser Trp Ser Val Pro Ser Pro Asp Trp Arg Ala Trp		95
	100	105
Trp Gln Arg Ser Leu Ser Leu Ala Arg Ala Asn Ser Gly Asp Gln Asp		110
	115	120
Tyr Lys Tyr Asp Ser Thr Ser Asp Asp Ser Asn Phe Leu Asn Pro Pro		125
	130	135
Arg Gly Trp Asp His Thr Ala Pro Gly His Arg Thr Phe Glu Thr Lys		140
	145	150
Asp Gln Pro Glu Tyr Asp Ser Thr Asp Gly Glu Gly Asp Trp Ser Leu		155
	160	165
Trp Ser Val Cys Ser Val Thr Cys Gly Asn Gly Asn Gln Lys Arg Thr		170
	175	180
Arg Ser Cys Gly Tyr Ala	185	190
195		

<210> 3373

<211> 726

<212> DNA

<213> Homo sapiens

<400> 3373

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 120
 gtgttctggt gcggggccagc gcctgaccgg tgcggggcggc ctcaggagag gagagcttgc
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 tcagtgcgtc acgtagtcag ggctcaggct ggggcccggc tccagagcct ggtcacattc
 240
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 300
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 360
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 420
 cagcccttcc accaccagca tggtctcatt tccagggttc tctgtttaaa aaacaaaagt
 480
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 720
 atgcat
 726

<210> 3374

<211> 84

<212> PRT

<213> Homo sapiens

<400> 3374

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Met Ser Glu Ala Gly Ala Cys Ala Gly Arg Ser Cys Val Leu Gln Pro
 1           5           10           15
Phe His His Gln His Val Leu Ile Ser Arg Phe Leu Cys Leu Lys Asn
      20           25           30
Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro
      35           40           45
Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile
      50           55           60
Trp Phe Leu Leu Leu Ala Val Asp Gly Cys Val Leu Gly Ser Cys Arg
65           70           75           80
Gly Arg Gly Leu

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<210> 3375

<211> 393

<212> DNA

<213> Homo sapiens

<400> 3375

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acgcgtgcat acgtgatctc atgtttgcac acatgtgtcc atgcagatgc atgctctcac
60
gcacatgtgc ccacacactc agcactcaca ccccgctctg caggctcagc cccactcctg
120
agccacctgc ctgggctttg ggggcccagc cggcatgggg agccccaggc tccagctggc
180
ctcgtttggc tctgaaatct aggccaggat gcagagcccc cagtgcggcc agtgagagccc
240
ctgggtactgt gcgcagcccc cacctggcag ccccttttcc tgtcaaagcc cctcccagcg
300
tcctctcccc accaggcaag ctaccgctt gaggttagg acgttgcgcc ctctgtgtc
360
cttgcccagc atccccggcc tgcattctcac cag
393

```

<210> 3376

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3376

```

Met Phe Ala His Met Cys Pro Cys Arg Cys Met Leu Ser Arg Thr Cys
 1           5           10           15
Ala His Thr Leu Ser Thr His Thr Pro Ser Cys Arg Leu Ser Pro Thr
      20           25           30
Pro Glu Pro Pro Ala Trp Ala Leu Gly Ala Gln Pro Ala Trp Gly Ala
      35           40           45
Pro Gly Ser Ser Trp Pro Arg Leu Ala Leu Lys Ser Arg Pro Gly Cys
      50           55           60
Arg Ala Arg Ser Ala Ala Ser Gly Ala Pro Gly Thr Val Arg Ser Pro

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<210> 3377
<211> 5235
<212> DNA
<213> Homo sapiens
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2554

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gttttaatac attcacctgt tacttttgag atgaagttca cctttcttgg atcacatgca
1380
aaggatgttt aggtctgtga agaaaagaat ttctaggccg ggtgctgtgg ctcacgcctg
1440
taatcccagc actttgggag gccgagaacc actcacgaat tcttgtttgg tgctcttgct
1500
gaactgggtg ataatgcaag agatgctgat gccaccagaa tagatattta tgcagaaaga
1560
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1680
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1740
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1860
cggaacctg tcacagacaa thtagagaaa ttgccattg agacagaact catctataag
1920
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1980
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2040
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2340
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3780
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3960
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4260
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<210> 3378

<211> 970

<212> PRT

<213> Homo sapiens

<400> 3378

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			20					25					30		
Thr	Gln	Ile	Gly	Gln	Tyr	Gly	Asn	Gly	Leu	Lys	Ser	Gly	Ser	Met	Arg
		35					40					45			
Ile	Gly	Lys	Asp	Phe	Ile	Leu	Phe	Thr	Lys	Lys	Glu	Asp	Thr	Met	Thr
	50				55						60				
Cys	Leu	Phe	Leu	Ser	Arg	Thr	Phe	His	Glu	Glu	Glu	Gly	Ile	Asp	Glu
65				70					75					80	
Val	Ile	Val	Pro	Leu	Pro	Thr	Trp	Asn	Ala	Arg	Thr	Arg	Glu	Pro	Val
			85					90					95		
Thr	Asp	Asn	Val	Glu	Lys	Phe	Ala	Ile	Glu	Thr	Glu	Leu	Ile	Tyr	Lys
			100				105						110		
Tyr	Ser	Pro	Phe	Arg	Thr	Glu	Glu	Glu	Val	Met	Thr	Gln	Phe	Met	Lys
		115					120				125				
Ile	Pro	Gly	Asp	Ser	Gly	Thr	Leu	Val	Ile	Ile	Phe	Asn	Leu	Lys	Leu
	130				135						140				
Met	Asp	Asn	Gly	Glu	Pro	Glu	Leu	Asp	Ile	Ile	Ser	Asn	Pro	Arg	Asp
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2558

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  610              615              620
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  625              630              635              640
Ser Lys Ser Pro Arg Glu Val Pro Ser Pro Lys Val Ile Lys Thr Pro
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Val Val Lys Lys Thr Glu Ser Pro Ile Lys Leu Ser Pro Ala Thr Pro
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Ser Arg Lys Arg Ser Val Ala Val Ser Asp Glu Glu Glu Val Glu Glu
  675              680              685
Glu Ala Glu Arg Arg Lys Glu Arg Cys Lys Arg Gly Arg Phe Val Val
  690              695              700
Lys Glu Glu Lys Lys Asp Ser Asn Glu Leu Ser Asp Ser Ala Gly Gly
  705              710              715              720
Glu Asp Ser Ala Asp Leu Lys Arg Ala Gln Lys Asp Lys Gly Leu His
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Val Glu Val Gly Lys His Val Val Arg Trp Lys Val Lys Phe Asp Tyr
  755              760              765
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Gln Ala Ile Ala Val Ala Glu Pro Ser Thr Ser Glu Cys Leu Arg Ile
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Glu Pro Asp Thr Thr Ala Leu Ser Thr Asn His Glu Thr Ile Asp Leu
  835              840              845
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  850              855              860
Phe Pro Ile Ser Lys Lys Gln Leu Ser Ala Met Asn Ser Asp Glu Leu
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      885              890              895
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Ala Ser Glu Glu Ser Leu Arg Thr Ser Glu Arg Lys Leu Arg Glu Thr
  915              920              925
Glu Glu Lys Leu Gln Lys Leu Arg Thr Asn Ile Val Ala Leu Leu Gln
  930              935              940
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Tyr Ile Glu Asp Leu Ile Thr Lys Gly Asp
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<210> 3379

<211> 898

<212> DNA

<213> Homo sapiens

<400> 3379

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<210> 3380

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3380

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			20					25					30		
Thr	Asn	Gly	Asn	Arg	Pro	Thr	Ile	Pro	Gln	Pro	Trp	Glu	Leu	Arg	Val
		35					40					45			
Ser	Glu	Asp	Ala	Leu	Leu	Gly	Ser	Glu	Ile	Ala	Gln	Val	Thr	Gly	Asn
	50					55					60				
Asp	Val	Asp	Ser	Gly	Pro	Val	Leu	Trp	Tyr	Val	Leu	Ser	Pro	Ser	Gly
65					70					75				80	
Pro	Gln	Asp	Pro	Phe	Ser	Val	Gly	Arg	Tyr	Gly	Gly	Arg	Val	Ser	Leu
			85					90					95		
Thr	Gly	Pro	Leu	Asp	Phe	Glu	Gln	Cys	Asp	Arg	Tyr	Gln	Leu	Gln	Leu
			100					105				110			
Leu	Ala	His	Asp	Gly	Pro	His	Glu	Gly	Arg	Ala	Xaa	Leu	Thr	Val	Leu
		115					120					125			
Val	Glu	Asp	Val	Asn	Asp	Asn	Ala	Pro	Ala	Phe	Ser	Gln	Ser	Leu	Tyr

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 Gln Val Met Leu Leu Glu His Thr Pro Pro Gly Ser Ala Ile Leu Ser
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 165 170 175
 His Leu Ala Ser Pro Ala Asp Gly Phe Ser Val Asp Pro Asn Asn Gly
 180 185 190
 Thr Leu Phe Thr Ile Val Gly Thr Leu Ala Leu Gly His Asp Gly Ser
 195 200 205
 Gly Ala Val Asp Val Val Leu Glu Ala Arg Asp His Gly Ala Pro Val
 210 215 220
 Arg Ala Ala Arg Ala Thr Val Asn Val Gln Leu Arg Asp Gln Asn Asp
 225 230 235 240
 His Ala Pro Ser Phe Thr Leu Phe His Tyr Arg Val Ala Val Thr Glu
 245 250 255
 Asp Leu Pro Pro Gly Ser Thr Leu Leu Thr Leu Glu Ala Thr Asp Ala
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<210> 3381

<211> 1379

<212> DNA

<213> Homo sapiens

<400> 3381

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<210> 3382

<211> 279

<212> PRT

<213> Homo sapiens

<400> 3382

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Ala	Thr	Glu	Gln	Glu	Pro	Leu	Glu	Gly	Thr	Glu	Gln	Thr	Leu	Asp	Ala
			20					25					30		
Glu	Glu	Glu	Gln	Glu	Glu	Ser	Glu	Glu	Ala	Ala	Cys	Gly	Ser	Lys	Lys
			35				40					45			
Arg	Val	Val	Pro	Gly	Ile	Val	Tyr	Leu	Gly	His	Ile	Pro	Pro	Arg	Phe
	50					55					60				
Arg	Pro	Leu	His	Val	Arg	Asn	Leu	Leu	Ser	Ala	Tyr	Gly	Glu	Val	Gly
65				70					75					80	
Arg	Val	Phe	Phe	Gln	Ala	Glu	Asp	Arg	Phe	Val	Arg	Arg	Lys	Lys	Lys
			85					90						95	
Ala	Ala	Ala	Ala	Ala	Gly	Gly	Lys	Lys	Arg	Ser	Tyr	Thr	Lys	Asp	Tyr
			100					105					110		
Thr	Glu	Gly	Trp	Val	Glu	Phe	Arg	Asp	Lys	Arg	Ile	Ala	Lys	Arg	Val
	115						120					125			
Ala	Ala	Ser	Leu	His	Asn	Thr	Pro	Met	Gly	Ala	Arg	Arg	Arg	Ser	Pro
	130					135					140				
Phe	Arg	Tyr	Asp	Leu	Trp	Asn	Leu	Lys	Tyr	Leu	His	Arg	Phe	Thr	Trp
145				150					155					160	
Ser	His	Leu	Ser	Glu	His	Leu	Ala	Phe	Glu	Arg	Gln	Val	Arg	Arg	Gln
			165					170						175	
Arg	Leu	Arg	Ala	Glu	Val	Ala	Gln	Ala	Lys	Arg	Glu	Thr	Asp	Phe	Tyr
			180					185					190		
Leu	Gln	Ser	Val	Glu	Arg	Gly	Gln	Arg	Phe	Leu	Ala	Ala	Asp	Gly	Asp
	195						200					205			
Pro	Ala	Arg	Pro	Asp	Gly	Ser	Trp	Thr	Phe	Ala	Gln	Arg	Pro	Thr	Glu

210	215	220
Gln Glu Leu Arg Ala Arg Lys Ala Ala Arg Pro Gly Gly Arg Glu Arg		
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Ala Arg Leu Ala Thr Ala Gln Asp Lys Ala Arg Ser Asn Lys Gly Leu		240
	245	250
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<210> 3383
 <211> 309
 <212> DNA
 <213> Homo sapiens

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 180
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 309

<210> 3384
 <211> 94
 <212> PRT
 <213> Homo sapiens

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20 25 30
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35 40 45
Asn Ala His Pro Trp Glu Leu Ser Cys Pro Arg Ser Pro Thr Gln Thr
50 55 60
Leu Gln His Glu Arg Ala Arg Leu Asn Leu Lys Lys Lys Lys Phe Arg
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Ala Pro Glu Gln Glu Leu Val Ser Ile Ile Asn Ser Glu Ser
85 90

<210> 3385
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<400> 3385

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<211> 188

<212> PRT

<213> Homo sapiens

<400> 3386

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			20					25					30		
Gln	Pro	Pro	Ala	Ser	Ala	Thr	Thr	Pro	Val	Pro	Leu	Ala	Arg	Phe	Phe
			35				40					45			
Val	Asn	Phe	Pro	Ser	Ala	Lys	Gln	Tyr	Phe	Ser	Gln	Phe	Lys	His	Met
	50					55					60				
Glu	Asp	Pro	Leu	Glu	Met	Glu	Arg	Ser	Pro	Gln	Leu	Arg	Lys	His	Ala
65					70					75				80	
Cys	Arg	Val	Met	Gly	Ala	Leu	Asn	Thr	Val	Val	Glu	Asn	Leu	His	Asp
			85						90					95	
Pro	Asp	Lys	Val	Ser	Ser	Val	Leu	Ala	Leu	Val	Gly	Lys	Ala	His	Ala
			100					105					110		
Leu	Lys	His	Lys	Val	Glu	Pro	Val	Tyr	Phe	Lys	Ile	Leu	Ser	Gly	Val
			115				120					125			
Ile	Leu	Glu	Val	Val	Ala	Glu	Glu	Phe	Ala	Ser	Asp	Phe	Pro	Pro	Glu
	130					135					140				
Thr	Gln	Arg	Ala	Trp	Ala	Lys	Leu	Arg	Gly	Leu	Ile	Tyr	Ser	His	Val
145					150					155				160	
Thr	Ala	Ala	Tyr	Lys	Glu	Val	Gly	Trp	Val	Gln	Gln	Val	Pro	Asn	Ala
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<210> 3387

<211> 3299

<212> DNA

<213> Homo sapiens

<400> 3387

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2580
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2700
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2760
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2820
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2880
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2940
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3000

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 3180
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 3299

<210> 3388

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3388

Ser	Gly	Arg	Gly	Leu	Leu	Leu	Gly	Leu	Trp	Trp	Arg	Arg	Arg	Arg	Thr
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Leu	Gly	Val	Trp	Thr	Gln	Arg	Arg	Arg	Glu	His	Glu	Arg	Pro	Ser	Ser
			20					25					30		
Leu	Arg	Val	Val	Leu	Ala	Leu	Arg	Gly	Arg	Glu	Glu	Val	Ser	Asp	Ala
		35					40					45			
Gly	Cys	Gly	Gly	Pro	Arg	Ile	Thr	Ile	Asn	Lys	Asp	Thr	Lys	Val	Pro
50						55					60				
Asn	Ala	Cys	Leu	Phe	Thr	Ile	Asn	Lys	Glu	Asp	His	Thr	Leu	Gly	Asn
65					70					75				80	
Ile	Ile	Lys	Ser	Gln	Leu	Leu	Lys	Asp	Pro	Gln	Val	Leu	Phe	Ala	Gly
				85					90					95	
Tyr	Lys	Val	Pro	His	Pro	Leu	Glu	His	Lys	Ile	Ile	Ile	Arg	Val	Gln
			100					105					110		
Thr	Thr	Pro	Asp	Tyr	Ser	Pro	Gln	Glu	Ala	Phe	Thr	Asn	Ala	Ile	Thr
		115					120					125			
Asp	Leu	Ile	Ser	Glu	Leu	Ser	Leu	Leu	Glu	Glu	Arg	Phe	Arg	Val	Ala
	130					135					140				
Ile	Lys	Asp	Lys	Gln	Glu	Gly	Ile	Glu							
145						150									

<210> 3389

<211> 308

<212> DNA

<213> Homo sapiens

<400> 3389

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 120
 gacgggcttc cgtttgtgga gccgctgctt aacttcatct ggttcctgct gctggctgtg
 180
 gacggggaac cttctgacca gcctcatggg ctccctcagag caggaggatg gggaggagag
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 cccagcgcac ggcagcccca tcgagctgga ctgaactggc caggccacgt ggagacacca
 300

cggtcgac
308

<210> 3390
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3390
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1 5 10 15
Leu Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr
20 25 30
Thr Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro
35 40 45
Leu Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Glu Pro
50 55 60
Ser Asp Gln Pro His Gly Leu Leu Arg Ala Gly Gly Trp Gly Gly Glu
65 70 75 80
Pro Gln Arg Arg Gln Pro His Arg Ala Gly Leu Asn Trp Pro Gly His
85 90 95
Val Glu Thr Pro Arg Ser
100

<210> 3391
<211> 1295
<212> DNA
<213> Homo sapiens

<400> 3391
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gaagccctaa gtgacagttc agagcgtctt ttctcctttg gcgtcatcgc agatgttcaa
120
tttgacagact tagaagatgg cttaaatttc caaggaacca ggcggcgata ctacagacat
180
agtcttcttc acttacaggg tgccattgaa gactggaata atgaaagcag catgccctgt
240
tgtgtccttc agcttgaggaga tatcatcgat ggatataatg cacagtataa tgcattccaaa
300
aagtccttag aacttggtat ggacatgttc aagaggctta aagttccagt tcatcataca
360
tggggaaacc atgaattcta taacttcagt agagagtatt taacacactc taaacttaac
420
actaagtttc tagaagatca gattgtacat catcctgaga ccatgccttc agaagattat
480
tatgcttate attttgtacc attocctaaa ttccggttca ttttacttga tgcattatgac
540
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720

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 780
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 ccttttggtg tataccacgt caacctagaa ggagttattg aaacagctcc agacagccaa
 960
 gcctttggca cagttcatgt ctatcctgac aaaatgatgt tgaaagggag aggcagagtt
 1020
 ccagatagaa ttatgaatta caagaagaa agagccttcc attgttagtc taatttattt
 1080
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 1140
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 1200
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 1260
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 1295

<210> 3392

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3392

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Lys	Pro	Asn	Pro	Glu	Ala	Leu	Ser	Asp	Ser	Ser	Glu	Arg	Leu	Phe	Ser
			20					25					30		
Phe	Gly	Val	Ile	Ala	Asp	Val	Gln	Phe	Ala	Asp	Leu	Glu	Asp	Gly	Phe
		35					40					45			
Asn	Phe	Gln	Gly	Thr	Arg	Arg	Arg	Tyr	Tyr	Arg	His	Ser	Leu	Leu	His
	50				55						60				
Leu	Gln	Gly	Ala	Ile	Glu	Asp	Trp	Asn	Asn	Glu	Ser	Ser	Met	Pro	Cys
65				70						75				80	
Cys	Val	Leu	Gln	Leu	Gly	Asp	Ile	Ile	Asp	Gly	Tyr	Asn	Ala	Gln	Tyr
			85						90					95	
Asn	Ala	Ser	Lys	Lys	Ser	Leu	Glu	Leu	Val	Met	Asp	Met	Phe	Lys	Arg
			100					105					110		
Leu	Lys	Val	Pro	Val	His	His	Thr	Trp	Gly	Asn	His	Glu	Phe	Tyr	Asn
		115					120					125			
Phe	Ser	Arg	Glu	Tyr	Leu	Thr	His	Ser	Lys	Leu	Asn	Thr	Lys	Phe	Leu
	130					135					140				
Glu	Asp	Gln	Ile	Val	His	His	Pro	Glu	Thr	Met	Pro	Ser	Glu	Asp	Tyr
145				150						155				160	
Tyr	Ala	Tyr	His	Phe	Val	Pro	Phe	Pro	Lys	Phe	Arg	Phe	Ile	Leu	Leu
			165					170					175		
Asp	Ala	Tyr	Asp	Leu	Ser	Val	Leu	Gly	Val	Asp	Gln	Ser	Ser	Pro	Lys
		180						185				190			
Tyr	Glu	Gln	Cys	Met	Lys	Ile	Leu	Arg	Glu	His	Asn	Pro	Asn	Thr	Glu
	195						200				205				
Leu	Asn	Ser	Pro	Gln	Gly	Leu	Ser	Glu	Pro	Gln	Phe	Val	Gln	Phe	Asn

210		215		220
Gly Gly Phe Ser Gln Glu Gln Leu Asn Trp Leu Asn Glu Val Leu Thr				
225		230		235
Phe Ser Asp Thr Asn Gln Glu Lys Val Val Ile Val Ser His Leu Pro				240
	245		250	255
Ile Tyr Pro Asp Ala Ser Asp Asn Val Cys Leu Ala Trp Asn Tyr Arg				
	260		265	270
Asp Ala Leu Ala Val Ile Trp Ser His Glu Cys Val Val Cys Phe Phe				
	275		280	285
Ala Gly His Thr His Asp Gly Gly Tyr Ser Glu Asp Pro Phe Gly Val				
	290		295	300
Tyr His Val Asn Leu Glu Gly Val Ile Glu Thr Ala Pro Asp Ser Gln				
305		310		315
Ala Phe Gly Thr Val His Val Tyr Pro Asp Lys Met Met Leu Lys Gly				320
	325		330	335
Arg Gly Arg Val Pro Asp Arg Ile Met Asn Tyr Lys Lys Glu Arg Ala				
	340		345	350
Phe His Cys				
355				

<210> 3393
 <211> 510
 <212> DNA
 <213> Homo sapiens

<400> 3393
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 120
 agtcggggcg ggtcaaactt cgagtacttg aaacgggagc actcgctgtc gaagccctac
 180
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 240
 acccagtata tccgccttac cccagatatg caaagtaaac aggggtgcctt gtggaaccgg
 300
 gtgccatggt tcctgagaga ctgggagttg caggtgcact tcaaaatcca tggacaagga
 360
 aagaagaatc tgcattggga tggcttggca atctggtaca caaaggatcg gatgcagcca
 420
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 510

<210> 3394
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 3394
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 Cys Arg Leu Gly Met Gly Pro Gly Xaa Val Thr Pro Ser Ser Phe Val

20 25 30
 Gly Val Trp Ala Gly Ala Thr Ala Ser Arg Gly Gly Ser Asn Phe Glu
 35 40 45
 Tyr Leu Lys Arg Glu His Ser Leu Ser Lys Pro Tyr Gln Gly Val Gly
 50 55 60
 Thr Gly Ser Ser Ser Leu Trp Asn Leu Met Gly Asn Xaa Met Val Met
 65 70 75 80
 Thr Gln Tyr Ile Arg Leu Thr Pro Asp Met Gln Ser Lys Gln Gly Ala
 85 90 95
 Leu Trp Asn Arg Val Pro Cys Phe Leu Arg Asp Trp Glu Leu Gln Val
 100 105 110
 His Phe Lys Ile His Gly Gln Gly Lys Lys Asn Leu His Gly Asp Gly
 115 120 125
 Leu Ala Ile Trp Tyr Thr Lys Asp Arg Met Gln Pro Gly Pro Val Phe
 130 135 140
 Gly Asn Met Asp Lys Phe Val Gly Leu Gly Val Phe Val Asp Thr Tyr
 145 150 155 160
 Pro Asn Glu Glu Lys Gln Pro Phe Thr Arg
 165 170

<210> 3395

<211> 807

<212> DNA

<213> Homo sapiens

<400> 3395

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 120
 gcggtgcgtg ttgctgcgag tgggacgcgc actggtcggg gccggctcag gagccgggaa
 180
 aaatctttaa gaatggagtc taaaccttca aggattccaa gaagaatttc tgttcaacct
 240
 tccagctcct taagtgctag gatgatgtct ggaagcagag gaagtagttt aatgatacc
 300
 tatcactcaa gagactcttc atttagattg gattctgaat atcagtctac atcagcatca
 360
 gcactcgcgt caccatttca atctgcatgg tatagtgaat ctgagataac tcagggagca
 420
 cgctcaagat cgcagaacca gcaacgggat catgattcaa aaagacctaa actttcctgt
 480
 acaaactgta ctacctcagc tgggagaaat gttggaaatg gtttaaacac attatcagat
 540
 tcatcttgga ggcatagtca agttcctaga tcttcatcaa tggtagttgg atcatttgga
 600
 acagacttaa tgagagagag gagagatttg gagagaagaa cagattcctc tattagtaat
 660
 cttatggatt atagtcaccg aagtgggtgat ttcacaactt catcatatgt tcaagacaga
 720
 gttccttcat attcacaagg agcaagacca aaagaaaact caatgagcac tttacagttg
 780
 aatacatcat ccacaaacca ccaattg
 807

<210> 3396
 <211> 205
 <212> PRT
 <213> Homo sapiens

<400> 3396
 Met Glu Ser Lys Pro Ser Arg Ile Pro Arg Arg Ile Ser Val Gln Pro
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 Ser Ser Ser Leu Ser Ala Arg Met Met Ser Gly Ser Arg Gly Ser Ser
 20 25 30
 Leu Asn Asp Thr Tyr His Ser Arg Asp Ser Ser Phe Arg Leu Asp Ser
 35 40 45
 Glu Tyr Gln Ser Thr Ser Ala Ser Ala Ser Ala Ser Pro Phe Gln Ser
 50 55 60
 Ala Trp Tyr Ser Glu Ser Glu Ile Thr Gln Gly Ala Arg Ser Arg Ser
 65 70 75 80
 Gln Asn Gln Gln Arg Asp His Asp Ser Lys Arg Pro Lys Leu Ser Cys
 85 90 95
 Thr Asn Cys Thr Thr Ser Ala Gly Arg Asn Val Gly Asn Gly Leu Asn
 100 105 110
 Thr Leu Ser Asp Ser Ser Trp Arg His Ser Gln Val Pro Arg Ser Ser
 115 120 125
 Ser Met Val Leu Gly Ser Phe Gly Thr Asp Leu Met Arg Glu Arg Arg
 130 135 140
 Asp Leu Glu Arg Arg Thr Asp Ser Ser Ile Ser Asn Leu Met Asp Tyr
 145 150 155 160
 Ser His Arg Ser Gly Asp Phe Thr Thr Ser Ser Tyr Val Gln Asp Arg
 165 170 175
 Val Pro Ser Tyr Ser Gln Gly Ala Arg Pro Lys Glu Asn Ser Met Ser
 180 185 190
 Thr Leu Gln Leu Asn Thr Ser Ser Thr Asn His Gln Leu
 195 200 205

<210> 3397
 <211> 492
 <212> DNA
 <213> Homo sapiens

<400> 3397
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 120
 ccacagagag acagtggcac ctacgagcag ccagagcccc tgatccatga ccgagactct
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 240
 aacagccaca tcctggaca ttatgacttg cctccagtac ggcaccccc atcacctcan
 300
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 360
 gttgctgctc aaggctgggg acagagcata gtgtaccctt gccaggagca gggagtggac
 420

cggcagcgtg tgaacatgaa caacgcttaa cagagcaagt gatgggagaa taattcatgg
 480
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 492

<210> 3398
 <211> 163
 <212> PRT
 <213> Homo sapiens

<400> 3398
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 20 25 30
 Thr Leu Cys Ser Val Pro Ser Leu Glu Gln Gln Gln Pro Gly Xaa Ala
 35 40 45
 Ala Ser Ala Ile Pro Ser Trp Leu Leu Asn Asp Pro Gly Val Glu Xaa
 50 55 60
 Glu Val Met Gly Asp Ala Val Leu Glu Ala Ser His Asn Val Gln Gly
 65 70 75 80
 Cys Gly Cys Ser Trp Val Ser His Ser Gly Arg Gly Val Gly Pro Glu
 85 90 95
 Ala Glu Gly Ala Gly Ser Pro Gln Ser Leu Gly His Gly Ser Gly Gly
 100 105 110
 Trp Ala Ala Arg Arg Cys His Cys Leu Ser Val Ala Gly Val Ala Ala
 115 120 125
 Ala Ser Gly Cys Pro Arg Thr Glu Glu Ala Ala Trp Gly Glu Ile Leu
 130 135 140
 Arg Glu Gly Leu Ser Ser Pro Cys Ser Cys Ser Pro Gly Pro Pro Gly
 145 150 155 160
 Lys Leu Gly

<210> 3399
 <211> 5784
 <212> DNA
 <213> Homo sapiens

<400> 3399
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 120
 cattacatca accctgcaca cgccatttct ctcttaagt ccttgaatga ggagcgtctc
 180
 aaaggacagc tgtgtgatgt gctgctgatt gttggagacc aaaagttccg agctcataaa
 240
 aacgtcttgg ctgccagcag cgaatacttt cagagtttat tcacaaataa ggaaaatgag
 300
 tcacaaactg tatttcagct tgacttctgt gagccagatg cttttgataa tgttttaaac
 360
 tacatttatt cttcctctct atttgttgag aagagcagcc ttgctgctgt gcaagaactt
 420

ggctatagtc ttgggatttc ctttctgact aacatcgttt ctaaaacacc tcaagcccc
480
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540
aagagaagtg tcattgtttg tcaaagtaga aacgaagcac aaggaaaaac tgtagtcaa
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720
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1020
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1920
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2040

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3660

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3720
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3780
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3840
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3900
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3960
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4620
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<210> 3400

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 3400

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Ile	Ser	Leu	Leu	Ser	Ala	Leu	Asn	Glu	Glu	Arg	Leu	Lys	Gly	Gln	Leu
		20						25					30		
Cys	Asp	Val	Leu	Leu	Ile	Val	Gly	Asp	Gln	Lys	Phe	Arg	Ala	His	Lys
		35					40					45			
Asn	Val	Leu	Ala	Ala	Ser	Ser	Glu	Tyr	Phe	Gln	Ser	Leu	Phe	Thr	Asn
	50					55					60				
Lys	Glu	Asn	Glu	Ser	Gln	Thr	Val	Phe	Gln	Leu	Asp	Phe	Cys	Glu	Pro
65					70					75				80	
Asp	Ala	Phe	Asp	Asn	Val	Leu	Asn	Tyr	Ile	Tyr	Ser	Ser	Ser	Leu	Phe
				85					90					95	
Val	Glu	Lys	Ser	Ser	Leu	Ala	Ala	Val	Gln	Glu	Leu	Gly	Tyr	Ser	Leu
			100					105					110		
Gly	Ile	Ser	Phe	Leu	Thr	Asn	Ile	Val	Ser	Lys	Thr	Pro	Gln	Ala	Pro
		115				120						125			
Phe	Pro	Thr	Cys	Pro	Asn	Arg	Lys	Lys	Val	Phe	Val	Glu	Asp	Asp	Glu
	130					135					140				
Asn	Ser	Ser	Gln	Lys	Arg	Ser	Val	Ile	Val	Cys	Gln	Ser	Arg	Asn	Glu
145				150						155				160	
Ala	Gln	Gly	Lys	Thr	Val	Ser	Gln	Asn	Gln	Pro	Asp	Val	Ser	His	Thr
			165					170						175	
Ser	Arg	Pro	Ser	Pro	Ser	Ile	Ala	Val	Lys	Ala	Asn	Thr	Asn	Lys	Pro
		180					185					190			
His	Val	Pro	Lys	Pro	Ile	Glu	Pro	Leu	His	Asn	Leu	Ser	Leu	Thr	Glu
	195					200					205				
Lys	Ser	Trp	Pro	Lys	Asp	Ser	Ser	Val	Val	Tyr	Ala	Lys	Ser	Leu	Glu
	210				215					220					
His	Ser	Gly	Ser	Leu	Asp	Asp	Pro	Asn	Arg	Ile	Ser	Leu	Val	Lys	Arg

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225          230          235          240
Asn Ala Val Leu Pro Ser Lys Pro Leu Gln Asp Arg Glu Ala Met Asp
          245          250          255
Asp Lys Pro Gly Val Ser Gly Gln Leu Pro Lys Gly Lys Ala Leu Glu
          260          265          270
Leu Ala Leu Lys Arg Pro Arg Pro Val Leu Ser Val Cys Ser Ser
          275          280          285
Ser Glu Thr Pro Tyr Leu Leu Lys Glu Thr Asn Lys Gly Asn Gly Gln
          290          295          300
Gly Glu Asp Arg Asn Leu Leu Tyr Tyr Ser Lys Leu Gly Leu Val Ile
305          310          315          320
Pro Ser Ser Gly Ser Gly Ser Gly Asn Gln Ser Ile Asp Arg Ser Gly
          325          330          335
Pro Leu Val Lys Ser Leu Leu Arg Arg Ser Leu Ser Met Asp Ser Gln
          340          345          350
Val Pro Val Tyr Ser Pro Ser Ile Asp Leu Lys Ser Ser Gln Gly Ser
          355          360          365
Ser Ser Val Ser Ser Asp Ala Pro Gly Asn Val Leu Cys Ala Leu Ser
          370          375          380
Gln Lys Ser Ser Leu Lys Asp Cys Ser Glu Lys Thr Ala Leu Asp Asp
385          390          395          400
Arg Pro Gln Val Leu Gln Pro His Arg Leu Arg Ser Phe Ser Ala Ser
          405          410          415
Gln Ser Thr Asp Arg Glu Gly Ala Ser Pro Val Thr Glu Val Arg Ile
          420          425          430
Lys Thr Glu Pro Ser Ser Pro Leu Ser Asp Pro Ser Asp Ile Ile Arg
          435          440          445
Val Thr Val Gly Asp Ala Ala Thr Thr Ala Ala Ser Ser Ser Ser
          450          455          460
Val Thr Arg Asp Leu Ser Leu Lys Thr Glu Asp Asp Gln Lys Asp Met
465          470          475          480
Ser Arg Leu Pro Ala Lys Arg Arg Phe Gln Ala Asp Arg Arg Leu Pro
          485          490          495
Phe Lys Lys Leu Lys Val Asn Glu His Gly Ser Pro Val Ser Glu Asp
          500          505          510
Asn Phe Glu Glu Gly Ser Ser Pro Thr Leu Leu Asp Ala Asp Phe Pro
          515          520          525
Asp Ser Asp Leu Asn Lys Asp Glu Phe Gly Glu Leu Glu Gly Thr Arg
          530          535          540
Pro Asn Lys Lys Phe Lys Cys Lys His Cys Leu Lys Ile Phe Arg Ser
545          550          555          560
Thr Ala Gly Leu His Arg His Val Asn Met Tyr His Asn Pro Glu Lys
          565          570          575
Pro Tyr Ala Cys Asp Ile Cys His Lys Arg Phe His Thr Asn Phe Lys
          580          585          590
Val Trp Thr His Cys Gln Thr Gln His Gly Ile Val Lys Asn Pro Ser
          595          600          605
Pro Ala Ser Ser Ser His Ala Val Leu Asp Glu Lys Phe Gln Arg Lys
          610          615          620
Leu Ile Asp Ile Val Arg Glu Arg Glu Ile Lys Lys Ala Leu Ile Ile
625          630          635          640
Lys Leu Arg Arg Gly Lys Pro Gly Phe Gln Gly Gln Ser Ser Ser Gln
          645          650          655
Ala Gln Gln Val Ile Lys Arg Asn Leu Arg Ser Arg Ala Lys Gly Ala

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660 665 670
 Tyr Ile Cys Thr Tyr Cys Gly Lys Ala Tyr Arg Phe Leu Ser Gln Phe
 675 680 685
 Lys Gln His Ile Lys Met His Pro Gly Glu Lys Pro Leu Gly Val Asn
 690 695 700
 Lys Val Ala Lys Pro Lys Glu His Ala Pro Leu Ala Ser Pro Val Glu
 705 710 715 720
 Asn Lys Glu Val Tyr Gln Cys Arg Leu Cys Asn Ala Lys Leu Ser Ser
 725 730 735
 Leu Leu Glu Gln Gly Ser His Glu Arg Leu Cys Arg Asn Ala Ala Val
 740 745 750
 Cys Pro Tyr Cys Ser Leu Arg Phe Phe Ser Pro Glu Leu Lys Gln Glu
 755 760 765
 His Glu Ser Lys Cys Glu Tyr Lys Lys Leu Thr Cys Leu Glu Cys Met
 770 775 780
 Arg Thr Phe Lys Ser Ser Phe Ser Ile Trp Arg His Gln Val Glu Val
 785 790 795 800
 His Asn Gln Asn Asn Met Ala Pro Thr Glu Asn Phe Ser Leu Pro Val
 805 810 815
 Leu Asp His Asn Gly Asp Val Thr Gly Ser Ser Arg Pro Gln Ser Gln
 820 825 830
 Pro Glu Pro Asn Lys Val Asn His Ile Val Thr Thr Lys Asp Asp Asn
 835 840 845
 Val Phe Ser Asp Ser Ser Glu Gln Val Asn Phe Asp Ser Glu Asp Ser
 850 855 860
 Ser Cys Leu Pro Glu Asp Leu Ser Leu Ser Lys Gln Leu Lys Ile Gln
 865 870 875 880
 Val Lys Glu Glu Pro Val Glu Glu Ala Glu Glu Glu Ala Pro Glu Ala
 885 890 895
 Ser Thr Ala Pro Lys Glu Ala Gly Pro Ser Lys Glu Ala Ser Leu Trp
 900 905 910
 Pro Cys Glu Lys Cys Gly Lys Met Phe Thr Val His Lys Gln Leu Glu
 915 920 925
 Arg His Gln Glu Leu Leu Cys Ser Val Lys Pro Phe Ile Cys His Val
 930 935 940
 Cys Asn Lys Ala Phe Arg Thr Asn Phe Arg Leu Trp Ser His Phe Gln
 945 950 955 960
 Ser His Met Ser Gln Ala Ser Glu Glu Ser Ala His Lys Glu Ser Glu
 965 970 975
 Val Cys Pro Val Pro Thr Asn Ser Pro Ser Pro Pro Pro Leu Pro Pro
 980 985 990
 Pro Pro Pro Leu Pro Lys Ile Gln Pro Leu Glu Pro Asp Ser Pro Thr
 995 1000 1005
 Gly Leu Ser Glu Asn Pro Thr Pro Ala Thr Glu Lys Leu Phe Val Pro
 1010 1015 1020
 Gln Glu Ser Asp Thr Leu Phe Tyr His Ala Pro Pro Leu Ser Ala Ile
 1025 1030 1035 1040
 Thr Phe Lys Arg Gln Phe Met Cys Lys Leu Cys His Arg Thr Phe Lys
 1045 1050 1055
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 1060 1065

<210> 3401

<211> 579

<212> DNA

<213> Homo sapiens

<400> 3401

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 120
 gaagtttata ctaggcttgg agaaatgaac aatgctgtga gaaacctcca agaactctta
 180
 gaattagata gttcatcctc attgtgtgtg ctagtaagca ctgttgga aaactctgtagg
 240
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 300
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 360
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 420
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 480
 ttcttaacat tttgtatttt gtaggattga tcttattttg agacaagggt tgtaaatgt
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<210> 3402

<211> 148

<212> PRT

<213> Homo sapiens

<400> 3402

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		20						25					30		
Val	Tyr	Thr	Arg	Leu	Gly	Glu	Met	Asn	Asn	Ala	Val	Arg	Asn	Leu	Gln
		35				40						45			
Glu	Leu	Leu	Glu	Leu	Asp	Ser	Ser	Ser	Ser	Leu	Cys	Val	Leu	Val	Ser
	50				55						60				
Thr	Val	Gly	Lys	Leu	Cys	Arg	Leu	Ile	Asn	Glu	Asp	Val	Asn	Glu	Gln
65				70				75						80	
Val	Met	Gln	Val	Leu	Gly	Pro	Glu	Asp	Leu	Gln	Ser	Ile	Ile	Tyr	Lys
			85				90						95		
Leu	Glu	Glu	His	Glu	Glu	Phe	Phe	Pro	Ala	Phe	Gln	Ala	Phe	Thr	Asn
			100				105						110		
Asp	Leu	Leu	Glu	Ile	Leu	Glu	Ile	Asp	Asp	Ser	Gly	Cys	His	Cys	Thr
		115				120					125				
Cys	Ser	Lys	Glu	Ile	Lys	Ser	Thr	Phe	Ile	Leu	Lys	Thr	Asn	Gln	Ile
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Ile	Phe	Thr	Val												
145															

<210> 3403

<211> 1696

<212> DNA

<213> Homo sapiens

<400> 3403

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120
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180
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240
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300
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360
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420
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600
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720
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1500

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 1560
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 1680
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 1696

<210> 3404
 <211> 286
 <212> PRT
 <213> Homo sapiens

<400> 3404
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 20 25 30
 Ala Ser Glu Cys Thr Glu Leu Pro Lys Ala Glu Lys Trp Arg Arg Gln
 35 40 45
 Ile Ile Gly Glu Ile Ser Lys Lys Val Ala Gln Ile Gln Asn Ala Gly
 50 55 60
 Leu Gly Glu Phe Arg Ile Arg Asp Leu Asn Asp Glu Ile Asn Lys Leu
 65 70 75 80
 Leu Arg Glu Lys Gly His Trp Glu Val Arg Ile Lys Glu Leu Gly Gly
 85 90 95
 Pro Asp Tyr Gly Lys Val Gly Pro Lys Met Leu Asp His Glu Gly Lys
 100 105 110
 Glu Val Pro Gly Asn Arg Gly Tyr Lys Tyr Phe Gly Ala Ala Lys Asp
 115 120 125
 Leu Pro Gly Val Arg Glu Leu Phe Glu Lys Xaa Thr Ser Ser Ser Ser
 130 135 140
 Gln Xaa Lys Thr Arg Ala Glu Leu Met Lys Ala Ile Asp Phe Glu Tyr
 145 150 155 160
 Tyr Gly Tyr Leu Asp Glu Asp Asp Gly Val Ile Val Pro Leu Glu Gln
 165 170 175
 Glu Tyr Glu Lys Lys Leu Arg Ala Glu Leu Val Glu Lys Trp Lys Ala
 180 185 190
 Glu Arg Glu Ala Arg Leu Ala Arg Gly Glu Lys Glu Glu Glu Glu Glu
 195 200 205
 Glu Glu Glu Glu Ile Asn Ile Tyr Ala Val Thr Glu Glu Glu Ser Asp
 210 215 220
 Glu Glu Gly Ser Gln Glu Lys Gly Gly Asp Asp Ser Gln Gln Lys Phe
 225 230 235 240
 Ile Ala His Val Pro Val Pro Ser Gln Gln Glu Ile Glu Glu Ala Leu
 245 250 255
 Val Arg Arg Lys Lys Met Glu Leu Leu Gln Lys Tyr Ala Ser Glu Thr
 260 265 270
 Leu Gln Ala Gln Ser Glu Glu Ala Arg Arg Leu Leu Gly Tyr
 275 280 285

<210> 3405
 <211> 402

<212> DNA

<213> Homo sapiens

<400> 3405

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120
aacctgctcg cctccatccg taagggaat gccattgacg aagcggacat cccgccgcca
180
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300
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<210> 3406

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3406

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20     25     30
Asp Arg Gly Leu Lys Thr Leu Glu Asn Leu Leu Ala Ser Ile Arg Lys
35     40     45
Gly Asn Ala Ile Asp Glu Ala Asp Ile Pro Pro Pro Val Ala Ile Gly
50     55     60
Lys Gly Pro Ala Ser Thr Pro Thr Tyr Ser Pro Ala Pro Thr Gln Pro
65     70     75     80
Ala Pro Arg Ile Ala Ser Ala Pro Glu Pro Arg Val Thr Leu Glu Gly
85     90     95
Pro Ser Ala Thr Ala Pro Ala Ser Ser Pro Gly Leu Ala Lys Pro Gln
100    105    110
Met Pro Pro Gly Pro Cys Ser Pro Pro Ser Gly Pro Val Ala Glu Pro
115    120    125
Pro Ala Arg Leu Gln Ala
130

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<210> 3407

<211> 535

<212> DNA

<213> Homo sapiens

<400> 3407

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tttcccggac accatgcctt ctggcggtg aggcaggtgg cggcaccgac aggcccgggg
120

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 240
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 360
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 420
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<210> 3408

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3408

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Ser	Ala	Gly	Thr	Phe	Pro	Gly	His	His	Ala	Phe	Ser	Ala	Val	Arg	Gln
			20				25						30		
Val	Ala	Ala	Pro	Thr	Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Pro	Thr
		35				40					45				
Ser	Ser	Val	Ala	Arg	Gln	Val	Ala	Ala	Pro	Thr	Gly	Pro	Ala	Gly	Thr
	50				55					60					
Phe	Pro	Gly	Xaa	Pro	Gly	Leu	Leu	Gly	Lys	Gln	Val	Ala	Ala	Pro	Thr
65				70				75						80	
Gly	Pro	Gly	Gly	Thr	Phe	Pro	Gly	His	Leu	Ala	Ser	Ser	Ala	Arg	Gln
				85				90						95	
Val	Ala	Glu	Leu	Val	Pro	Arg	Leu	Ile	Phe	Leu	Arg	Gln	Thr	Cys	Leu
			100				105					110			
Gln	Arg	Lys	Leu	Cys	Ser	Thr	Gly	Glu	Thr	Gly	Lys	Cys	Thr	Arg	Tyr
		115				120					125				
Trp	Leu	Ile													
		130													

<210> 3409

<211> 959

<212> DNA

<213> Homo sapiens

<400> 3409

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 120
 gagagagagg aaccttgccg gtccgaggca gctctgcg cccctcctg cgcttagcat
 180
 cctcggccca gcgcggcccc caccgccatg gaggtgctgg agagcgggga gcagggcg
 240

ctgcagtggg accgcaagct gagcgagctg tcagagcccg gggacggcga ggcctcatg
 300
 taccacacgc acttctcaga acttctggat gagttttccc agaacgtctt gggtcagctc
 360
 ctgaatgac ctttctctc agagaagagt gtgtcaatgg aggtggaacc ttccccgacg
 420
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 480
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 600
 cagacgaacc acccccagga ctcggtccgt ctgtcactct gaccatcaca gccatctcca
 660
 ccncggttg aaaaggagga acctcctctg gaaatgaaca ctgggggttg ttcctcgtgc
 720
 cagaccatta ttcctaaaat taagctggag cctcatgaag tggatcagtt tctaaacttc
 780
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 840
 tgggtctaca gagagggaaat atggcgagag agctgggatg agtttgtacc acagatgttg
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 959

<210> 3410

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3410

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			20					25					30		
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<211> 958

<212> DNA

<213> Homo sapiens

<400> 3411

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<212> PRT

<213> Homo sapiens

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<210> 3416

<211> 259

<212> PRT

<213> Homo sapiens

<400> 3416

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		180		185		190									
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		195		200		205									
Val	Leu	Gly	Ser	Pro	Lys	Pro	Glu	Glu	Ile	Pro	Leu	Thr	Trp	Ile	Gln
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Pro	Gly	Thr	Thr	Val	Leu	Asn	Cys	Ser	His	Asp	Phe	Leu	Ser	Gly	Lys
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 <212> DNA
 <213> Homo sapiens

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<210> 3418
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 3418
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 Ile Phe Arg Ser Leu His Thr Leu Val Gly Gln Leu Asp Leu Arg Asp
 35 40 45
 Asp Val Val Lys Ile Thr Ile Asp Trp Asn Lys Leu Gln Ser Leu Ser
 50 55 60
 Ala Phe Gln Pro Ala Leu Leu Phe Ser Ala Leu Glu Gln His Ile Leu

2595

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<210> 3422

<211> 418

<212> PRT

<213> Homo sapiens

<400> 3422

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 35 40 45
 Leu Leu Leu Phe Ile Ile Ser Arg Pro Gly Pro Ser Ser Pro Ala Gly
 50 55 60
 Gly Glu Asp Arg Val His Val Leu Val Leu Ser Ser Trp Arg Ser Gly
 65 70 75 80
 Ser Ser Phe Leu Gly Gln Leu Phe Ser Gln His Pro Asp Val Phe Tyr
 85 90 95
 Leu Met Glu Pro Ala Trp His Val Trp Thr Thr Leu Ser Gln Gly Ser
 100 105 110
 Ala Ala Thr Leu His Met Ala Val Arg Asp Leu Met Arg Ser Ile Phe
 115 120 125
 Leu Cys Asp Met Asp Val Phe Asp Ala Tyr Met Glu Pro Gly Pro Arg
 130 135 140
 Arg Gln Ser Ser Leu Phe Gln Trp Glu Asn Ser Arg Ala Leu Cys Ser
 145 150 155 160
 Ala Pro Ala Cys Asp Ile Ile Pro Gln Asp Glu Ile Ile Pro Arg Ala
 165 170 175
 His Cys Arg Leu Leu Cys Ser Gln Gln Pro Phe Glu Val Val Glu Lys
 180 185 190
 Ala Cys Arg Ser Tyr Ser His Val Val Leu Lys Glu Val Arg Phe Phe
 195 200 205
 Asn Leu Gln Ser Leu Tyr Pro Leu Leu Lys Asp Pro Ser Leu Asn Leu
 210 215 220
 His Ile Val His Leu Val Arg Asp Pro Arg Ala Val Leu Arg Ser Arg
 225 230 235 240
 Glu Ala Ala Gly Pro Ile Leu Ala Arg Asp Asn Gly Ile Val Leu Gly
 245 250 255
 Thr Asn Gly Lys Trp Val Glu Ala Asp Pro His Leu Arg Leu Ile Arg
 260 265 270
 Glu Val Cys Arg Ser His Val Arg Ile Ala Glu Ala Ala Thr Leu Lys
 275 280 285
 Pro Pro Pro Phe Leu Arg Gly Arg Tyr Arg Leu Val Arg Phe Glu Asp
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 305 310 315 320
 Gly Leu Thr Leu Thr Pro Gln Leu Glu Ala Trp Ile His Asn Ile Thr
 325 330 335
 His Gly Ser Gly Ile Gly Lys Pro Ile Glu Ala Phe His Thr Ser Ser
 340 345 350
 Arg Asn Ala Arg Asn Val Ser Gln Ala Trp Arg His Ala Leu Pro Phe
 355 360 365
 Thr Lys Ile Leu Arg Val Gln Glu Val Cys Ala Gly Ala Leu Gln Leu
 370 375 380
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 Pro Asp

<210> 3423

<211> 1851

<212> DNA

<213> Homo sapiens

<400> 3423

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<210> 3424
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 3424
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 Ala Ser Tyr Gly Val Arg Gln Asp Gly Asp Pro Ala Phe Leu Tyr Leu
 35 40 45
 Leu Ser Ala Pro Arg Glu Ala Pro Ala Thr Gly Pro Ser Pro Gln His
 50 55 60
 Pro Gln Lys Met Asp Gly Glu Leu Gly Arg Leu Phe Pro Pro Ser Leu
 65 70 75 80
 Gly Leu Pro Pro Gly Pro Gln Pro Ala Ala Ser Ser Leu Pro Ser Pro
 85 90 95
 Leu Gln Pro Ser Trp Ser Cys Pro Ser Cys Thr Phe Ile Asn Ala Pro
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<210> 3425
 <211> 1416
 <212> DNA
 <213> Homo sapiens

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<210> 3426

<211> 410

<212> PRT

<213> Homo sapiens

<400> 3426

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 Ser Leu Gly Arg Asp Pro Gly Arg Glu Glu Val Arg Pro Arg Gly
 35 40 45
 Arg Lys Ala Ala Ser Pro Gly Ala Pro Arg Pro Trp Pro Arg His Ser
 50 55 60
 Thr His Met Ala Ser Gly Val Gly Ala Ala Phe Glu Glu Leu Pro His

65					70					75				80	
Asp	Gly	Thr	Cys	Asp	Glu	Cys	Glu	Pro	Asp	Glu	Ala	Pro	Gly	Ala	Glu
				85					90				95		
Glu	Val	Cys	Arg	Glu	Cys	Gly	Phe	Cys	Tyr	Cys	Arg	Arg	His	Ala	Glu
			100					105					110		
Ala	His	Arg	Gln	Lys	Phe	Leu	Ser	His	His	Leu	Ala	Glu	Tyr	Val	His
			115				120					125			
Gly	Ser	Gln	Ala	Trp	Thr	Pro	Pro	Ala	Asp	Gly	Glu	Gly	Ala	Gly	Lys
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Ala	Gly	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Glu	Ser	Glu	Ser	Glu	Glu	Glu
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	195						200					205			
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			245					250						255	
Gln	Glu	Asp	Arg	Gln	Leu	Ile	Cys	Val	Leu	Cys	Pro	Val	Ile	Gly	Ala
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Glu	Arg	Leu	Lys	Phe	Lys	Ser	Ser	Asp	Pro	Lys	Val	Thr	Arg	Asp	Gln
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Met	Lys	Met	Phe	Ile	Gln	Gln	Glu	Phe	Lys	Lys	Val	Gln	Lys	Val	Ile
			325					330					335		
Ala	Asp	Glu	Glu	Gln	Lys	Ala	Leu	His	Leu	Val	Asp	Ile	Gln	Glu	Ala
			340					345					350		
Met	Ala	Thr	Ala	His	Val	Thr	Glu	Ile	Leu	Ala	Asp	Ile	Gln	Ser	His
		355					360					365			
Met	Asp	Arg	Leu	Met	Thr	Gln	Met	Ala	Gln	Ala	Lys	Glu	Gln	Leu	Asp
	370					375					380				
Thr	Ser	Asn	Glu	Ser	Ala	Glu	Pro	Lys	Ala	Glu	Gly	Asp	Glu	Glu	Gly
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Pro	Ser	Gly	Ala	Ser	Glu	Glu	Glu	Asp	Thr						
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<210> 3427

<211> 580

<212> DNA

<213> Homo sapiens

<400> 3427

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120

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 360
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 420
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 480
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<210> 3428

<211> 132

<212> PRT

<213> Homo sapiens

<400> 3428

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			20					25				30			
Met	Glu	Thr	Glu	Asp	Cys	Glu	Lys	Met	Ser	Asn	Met	Gly	Thr	Leu	Asn
			35				40					45			
Ser	Ser	Met	Leu	His	Arg	Ser	Ala	Glu	Ser	Leu	Lys	Ser	Leu	Ser	Ser
			50				55				60				
Glu	Leu	Cys	Pro	Glu	Lys	Ile	Leu	Pro	Glu	Glu	Lys	Pro	Val	His	Leu
65					70				75					80	
Pro	Val	Leu	Arg	Arg	Ser	Lys	Ser	Gln	Ser	Arg	Pro	Gln	Gln	Val	Lys
			85					90				95			
Phe	Ser	Asp	Asp	Val	Ile	Asp	Asn	Gly	Asn	Tyr	Asp	Ile	Glu	Ile	Arg
			100					105				110			
Gln	Pro	Pro	Met	Ser	Glu	Arg	Thr	Arg	Arg	Arg	Val	Tyr	Asn	Phe	Glu
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<210> 3429

<211> 634

<212> DNA

<213> Homo sapiens

<400> 3429

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 420
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 634

<210> 3430
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 3430
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 Tyr Thr Val Thr Thr Val Thr Thr Gln Gly Phe Pro Leu Pro Thr Gly
 35 40 45
 Gln His Ile Pro Gly Cys Ser Ala Gln Gln Leu Pro Ala Cys Ser Val
 50 55 60
 Met Phe Ser Gly Gln His Tyr Pro Leu Cys Cys Leu Pro Pro Pro Leu
 65 70 75 80
 Ile Gln Ala Cys Thr Met Gln Gln Leu Pro Val Pro Tyr Gln Ala Tyr
 85 90 95
 Pro His Leu Ile Ser Ser Asp His Tyr Ile Leu His Pro Pro Pro Pro
 100 105 110
 Gly Thr His Pro Ala Ala Pro Gly Ser Val
 115 120

<210> 3431
 <211> 1396
 <212> DNA
 <213> Homo sapiens

<400> 3431
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 120
 ctgcgtggga gcagcgtccc aatgccagcg cgtcacgtcg ccagcgtctg cctagcacgc
 180
 agcgccgcca gccgtgtcgc caacagtacc aaatcgtcgt gcagcggctt cgccccgccc
 240

gacttcaacc attgcctcaa ggattgggac tataatggcc ttcctgtgct caccaccaac
 300
 gccatcggcc agtgggatct ggtgtgtgac ctgggctggc aggtgatcct ggagcagatc
 360
 ctcttcacat tgggctttgc ctccggctac ctgttcctgg gttaccccg agacagattt
 420
 ggccgtcgcg ggattgtgct gctgaccttg gggctgggtg gccctgtgg agtaggaggg
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 gccggtgttg acctgggtgt ctacctgatg cgctggagc tgtgcgaccc aaccagagg
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 720
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 780
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 840
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 900
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 960
 aaaaatctgc ttatcctggg cttcaccaac ttcattgcc atgccattcg cactgctac
 1020
 cagcctgtgg gaggaggagg gagcccatcg gacttctacc tgtgctctct gctggccagc
 1080
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 1260
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 1380
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<210> 3432

<211> 296

<212> PRT

<213> Homo sapiens

<400> 3432

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 20 25 30
 Arg Val Ala Leu Ala Gly Glu Leu Val Gly Val Gly Gly His Phe Leu
 35 40 45
 Phe Leu Gly Leu Ala Leu Val Ser Lys Asp Trp Arg Phe Leu Gln Arg

50	55	60
Met Ile Thr Ala Pro Cys Ile Leu Phe Leu Phe Tyr Gly Trp Pro Gly		
65	70	75
Leu Phe Leu Glu Ser Ala Arg Trp Leu Ile Val Lys Arg Gln Ile Glu		80
	85	90
Glu Ala Gln Ser Val Leu Arg Ile Leu Ala Glu Arg Asn Arg Pro His		95
	100	105
Gly Gln Met Leu Gly Glu Glu Ala Gln Glu Ala Leu Gln Asp Leu Glu		110
	115	120
Asn Thr Cys Pro Leu Pro Ala Thr Ser Ser Phe Ser Phe Ala Ser Leu		125
	130	135
Leu Asn Tyr Arg Asn Ile Trp Lys Asn Leu Leu Ile Leu Gly Phe Thr		140
	145	150
Asn Phe Ile Ala His Ala Ile Arg His Cys Tyr Gln Pro Val Gly Gly		155
	160	165
Gly Gly Ser Pro Ser Asp Phe Tyr Leu Cys Ser Leu Leu Ala Ser Gly		170
	175	180
Thr Ala Ala Leu Ala Cys Val Phe Leu Gly Val Thr Val Asp Arg Phe		185
	190	195
Gly Arg Arg Gly Ile Leu Leu Leu Ser Met Thr Leu Thr Gly Ile Ala		200
	205	210
Ser Leu Val Leu Leu Gly Leu Trp Asp Cys Glu His Pro Ile Phe Pro		215
	220	225
Thr Val Trp Ala Gln Gln Gly Asn Pro Asn Arg Asp Leu Asn Glu Ala		230
	235	240
Ala Ile Thr Thr Phe Ser Val Leu Gly Leu Phe Ser Ser Gln Ala Ala		245
	250	255
Ala Ile Leu Ser Thr Leu Leu Ala Ala Glu Val Ile Pro Thr Thr Val		260
	265	270
Arg Gly Arg Gly Leu Gly Leu Ile		275
	280	285
	290	295

<210> 3433

<211> 1257

<212> DNA

<213> Homo sapiens

<400> 3433

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120

ccgagccact cccgttccca caccaggctc aacttgaaaa gggacgtcgc ccacctgtac

180

cgaggagtcg gctcgcgcta catcatgggg tcaggagaat ccttcatgca gctgcagcag

240

cgtctcctga gagagaagga ggccaagatc aggaaggcct tggacaggct tcgcaagaag

300

aggcacctgc tccgccggca gcggacgagg cgggagttcc ccgtgatctc cgtggtgggg

360

tacaccaact gcggtgagca cgcgccaggg ggaggggcct tccgcggtct ccgtgtcacc

420

ggtgaggact cgcccggggg agggcagggg gtccctgtcg tctcagtggt gccgtacgac

480

agctgcggtg agcacgtgcc caggagaggg ggttcccatg gtcgccgtgt ggggtacacc
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 720
 ctataccacc accctgtcta cacaatccac ccatctacac catcacctct cctctgtcta
 780
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 840
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 900
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 960
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 1080
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<210> 3434

<211> 311

<212> PRT

<213> Homo sapiens

<400> 3434

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			20					25					30		
Gly	Arg	Gln	Arg	Pro	Gln	Arg	Pro	Ser	His	Ser	Arg	Ser	His	Thr	Arg
		35				40					45				
Ser	Asn	Leu	Lys	Arg	Asp	Val	Ala	His	Leu	Tyr	Arg	Gly	Val	Gly	Ser
50					55					60					
Arg	Tyr	Ile	Met	Gly	Ser	Gly	Glu	Ser	Phe	Met	Gln	Leu	Gln	Gln	Arg
65				70					75					80	
Leu	Leu	Arg	Glu	Lys	Glu	Ala	Lys	Ile	Arg	Lys	Ala	Leu	Asp	Arg	Leu
			85					90						95	
Arg	Lys	Lys	Arg	His	Leu	Leu	Arg	Arg	Gln	Arg	Thr	Arg	Arg	Glu	Phe
			100					105					110		
Pro	Val	Ile	Ser	Val	Val	Gly	Tyr	Thr	Asn	Cys	Gly	Glu	His	Ala	Pro
		115				120					125				
Arg	Gly	Gly	Ala	Phe	Arg	Gly	Leu	Arg	Val	Thr	Gly	Glu	Asp	Ser	Pro
130						135					140				
Gly	Gly	Gly	Gln	Gly	Val	Pro	Val	Val	Ser	Val	Val	Pro	Tyr	Asp	Ser
145				150					155					160	
Cys	Gly	Glu	His	Val	Pro	Arg	Arg	Gly	Gly	Ser	His	Gly	Arg	Arg	Val

165 170 175
 Gly Tyr Thr Ser Cys Cys Glu Ser Ser Pro Arg Arg Arg Val Ser Cys
 180 185 190
 Gly Leu Cys Val Gly Tyr Ser Ser Gln Gly Glu Asp Val Ile Tyr Pro
 195 200 205
 Ile Leu Pro Ser Arg Ala Leu Pro Pro Cys Leu Tyr His Asn Leu Pro
 210 215 220
 Ser Ile Tyr Thr Ile Leu Leu Ser Arg Pro Ser Pro Leu Pro Tyr Leu
 225 230 235 240
 Tyr His His Pro Val Tyr Thr Ile His Pro Ser Thr Pro Ser Pro Leu
 245 250 255
 Leu Cys Leu Tyr His Pro Pro Val Tyr Thr Ser Thr Thr Thr Pro Ser
 260 265 270
 Ile Pro Pro Pro Arg Leu His Asn Pro Pro Val Tyr Thr Thr Met Ser
 275 280 285
 Pro Ser Ser Ala Pro Ser Ser Cys Leu His Trp His His Cys Pro Ser
 290 295 300
 Tyr Thr Thr Thr Pro Ser Thr
 305 310

<210> 3435

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 3435

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 120
 gacagcaatg ccgataccta ctgggagagc gatgggtccc agtgccaaca ctgggtacgg
 180
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 240
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 300
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 360
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 420
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 660
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 720
 gactctgaga gcagcaagcc cagcttcatg ccacgcctat acatcaaccg ccgtcttgcc
 780
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 840

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 900
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 960
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 1020
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 1080
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<210> 3436

<211> 408

<212> PRT

<213> Homo sapiens

<400> 3436

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 20 25 30
 Glu Phe Asn Val Ser Cys Leu Thr Asp Ser Asn Ala Asp Thr Tyr Trp
 35 40 45
 Glu Ser Asp Gly Ser Gln Cys Gln His Trp Val Arg Leu Thr Met Lys
 50 55 60
 Lys Gly Thr Ile Val Lys Lys Leu Leu Leu Ala Val Asp Thr Thr Asp
 65 70 75 80
 Asp Asn Phe Met Pro Lys Arg Val Val Val Tyr Gly Gly Glu Gly Asp
 85 90 95
 Asn Leu Lys Lys Leu Ser Asp Val Ser Ile Asp Xaa Arg Pro Ser Ser
 100 105 110
 Gly Xaa Val Cys Val Leu Glu Asp Met Thr Val His Leu Pro Ile Ile
 115 120 125
 Glu Ile Arg Ile Val Glu Cys Arg Asp Asp Gly Ile Asp Val Arg Leu
 130 135 140
 Arg Gly Val Lys Ile Lys Ser Ser Arg Gln Arg Glu Leu Gly Leu Asn
 145 150 155 160
 Ala Asp Leu Phe Gln Pro Thr Ser Leu Val Arg Tyr Pro Arg Leu Glu
 165 170 175
 Gly Thr Asp Pro Glu Val Leu Tyr Arg Arg Ala Val Leu Leu Gln Arg
 180 185 190
 Phe Ile Lys Ile Leu Asp Ser Val Leu His His Leu Val Pro Ala Trp
 195 200 205
 Asp His Thr Leu Gly Thr Phe Ser Glu Ile Lys Gln Val Lys Gln Phe
 210 215 220
 Leu Leu Leu Ser Arg Gln Arg Pro Gly Leu Val Ala Gln Cys Leu Arg
 225 230 235 240
 Asp Ser Glu Ser Ser Lys Pro Ser Phe Met Pro Arg Leu Tyr Ile Asn
 245 250 255
 Arg Arg Leu Ala Met Glu His Arg Ala Cys Pro Ser Arg Asp Pro Ala

260 265 270
 Cys Lys Asn Ala Val Phe Thr Gln Val Tyr Glu Gly Leu Lys Pro Ser
 275 280 285
 Asp Lys Tyr Glu Lys Pro Leu Asp Tyr Arg Trp Pro Met Arg Tyr Asp
 290 295 300
 Gln Trp Trp Glu Cys Lys Phe Ile Ala Glu Gly Ile Ile Asp Gln Gly
 305 310 315 320
 Gly Gly Phe Arg Asp Ser Leu Ala Asp Met Ser Glu Glu Leu Cys Pro
 325 330 335
 Ser Ser Ala Asp Thr Pro Val Pro Leu Pro Phe Phe Val Arg Thr Ala
 340 345 350
 Asn Gln Gly Asn Gly Thr Gly Glu Ala Arg Asp Met Tyr Val Pro Asn
 355 360 365
 Pro Ser Cys Arg Asp Phe Ala Lys Tyr Glu Trp Ile Gly Gln Leu Met
 370 375 380
 Gly Ala Ala Leu Arg Gly Lys Glu Phe Leu Val Leu Ala Leu Pro Gly
 385 390 395 400
 Phe Val Trp Lys Gln Leu Ser Ala
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<210> 3437

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 3437

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 180
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 240
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 1680
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 1860
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 1920
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 1980
 tcgagtttct ttatcttggt tttagaggtt gttttttgca gatcttggtg ttaatagacc
 2040
 aaataaataa ataaatatc ccagcaaaaa aaaaaaaaaa a
 2081

<210> 3438

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3438

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Arg	Pro	Pro	Lys	Arg	Asp	Phe	Gln	Val	Glu	Ala	Thr	Thr	Ala	Glu	Asp
			20				25						30		
Glu	Ala	Glu	Pro	Gln	Trp	Glu	Arg	Glu	Gly	Ala	Arg	Phe	Thr	Thr	Pro

	35		40		45	
Arg	Gly	Pro	Arg	Ser	Ala	Gly
	50		55		60	
Pro	Leu	Arg	Val	Pro	Cys	Leu
65			70		75	
Pro	Gly	Arg	Ala	Gln	Pro	Arg
		85		90		95
Gly	Arg	Arg	Gly	Ala	Ala	Glu
	100		105			

<210> 3439
 <211> 1519
 <212> DNA
 <213> Homo sapiens

<400> 3439
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 120
 ggggcgcggg gcgccccggg ggagcggggc cggcacccta ggggacgcaa agccccggga
 180
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 240
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 420
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 480
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<210> 3440

<211> 287

<212> PRT

<213> Homo sapiens

<400> 3440

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Leu	Ser	Pro	Cys	Ser	Pro	Val	Ser	Arg	Pro	Pro	Arg	Ala	Ser	Thr	Ala	20	25	30	
Val	Ala	Ala	Ala	Ala	Arg	Trp	Pro	Arg	Gln	Pro	Arg	His	Pro	Arg	His	35	40	45	
Thr	Ser	Pro	Met	Pro	Pro	Pro	Ala	Ala	Leu	Arg	Pro	Pro	Ala	Gly	Pro	50	55	60	
Arg	Arg	Pro	Arg	Xaa	Pro	Gly	Gly	Pro	Gln	His	His	Gln	Pro	Gln	Pro	65	70	75	80
Pro	Leu	Trp	Thr	Pro	Thr	Pro	Pro	Ser	Pro	Ala	Ser	Asp	Trp	Pro	Pro	85	90	95	
Leu	Pro	Pro	Asn	Arg	Pro	Pro	Gln	Asn	Pro	Gly	Pro	Thr	Leu	Pro	Trp	100	105	110	
Arg	Gln	Arg	Asp	Lys	Gly	Gly	Pro	Ser	Pro	Leu	Pro	Glu	Ala	Arg	Thr	115	120	125	
Pro	Trp	Gly	Gly	Gly	Glu	Asp	Val	Ser	Ala	Gly	Pro	Leu	Xaa	Thr	Pro	130	135	140	
Phe	Leu	Ser	Ala	Pro	Leu	Val	Pro	Arg	Ser	Pro	Gly	Gly	Glu	Ser	Ala	145	150	155	160
Asp	Ser	Ser	Gln	Ala	Gly	Thr	Arg	Leu	Val	Pro	Glu	His	Ala	Ala	Ala	165	170	175	
His	Thr	Gln	Gly	His	Gly	Pro	Ser	Gly	Pro	Gly	Thr	Trp	Ser	Gly	Ser	180	185	190	
Glu	Arg	Pro	Gly	Cys	Leu	Ala	Asp	Arg	Thr	Ser	Glu	Thr	Thr	Gln	Pro	195	200	205	
Ser	Phe	Glu	Asp	Ala	Pro	Ala	Gln	Pro	Ser	Pro	Gly	Val	Pro	Trp	Arg	210	215	220	
Thr	Thr	Leu	Ala	Glu	Thr	Leu	Leu	Ile	Pro	Gly	Leu	Glu	Leu	Leu	Gly	225	230	235	240
Gly	Arg	Gln	Ala	Ser	Thr	Pro	Thr	Leu	Gly	Asn	Ala	Glu	Pro	Leu	Arg	245	250	255	
Met	Cys	Ala	Arg	Gly	Arg	Val	Cys	Val	Phe	Leu	Arg	Val	Ser	Leu	Phe				

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<210> 3441
 <211> 2074
 <212> DNA
 <213> Homo sapiens

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 180
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 300
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 420
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 2074

<210> 3442

<211> 374

<212> PRT

<213> Homo sapiens

<400> 3442

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		20						25					30		
Ala	Glu	Leu	Leu	Met	Ser	Leu	His	Asp	Leu	Asp	Val	Gly	Glu	Ile	Cys
		35					40					45			
Thr	Val	Asp	Pro	Cys	His	Lys	Phe	Thr	Trp	Cys	Leu	Asp	Ala	Cys	Ile
	50					55					60				
Arg	Glu	Arg	Phe	Val	Asp	Ser	Lys	Arg	Ala	Arg	Glu	Leu	Gln	Gly	Phe
65					70					75				80	
Leu	Asp	Asp	Val	Lys	Lys	Gly	Gln	Glu	Gln	Val	Leu	Gly	Asp	Leu	Ser
				85				90					95		
Met	Ile	Leu	Cys	Asp	Pro	Phe	Ala	Ile	Asn	Thr	Leu	Ala	Leu	Ser	Thr
		100						105					110		
Val	Arg	His	Leu	Gln	Glu	Leu	Val	Gly	Gln	Glu	Thr	Leu	Pro	Arg	Asp
	115						120				125				
Ser	Pro	Asp	Leu	Leu	Leu	Leu	Arg	Leu	Leu	Ala	Leu	Gly	Gln	Gly	
	130					135				140					
Ala	Trp	Asp	Met	Ile	Asp	Ser	Gln	Val	Phe	Lys	Glu	Pro	Lys	Met	Glu
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<210> 3443
<211> 2070
<212> DNA
<213> Homo sapiens
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2070

<210> 3444

<211> 579

<212> PRT

<213> Homo sapiens

<400> 3444

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      20              25              30
Ser Glu Asn Val Glu Lys Ser Lys Ala Tyr Lys Leu Asn Pro Lys Phe
      35              40              45
Cys Ser Leu Ser Phe Gln Ala Thr Lys Cys Lys Leu Ala Gly Leu Glu
      50              55              60
Val Leu Ser Asp Asp Pro Asp Leu Val Lys Val Val Glu Ser Leu Thr
      65              70              75              80
Cys Gly Lys Ile Phe Ala Val Glu Ile Leu Asp Lys Ala Asp Ile Pro
      85              90              95
Leu Val Val Leu Tyr Asp Thr Ser Gly Glu Asp Asp Ile Asn Ile Asn
      100             105             110
Ala Thr Cys Leu Lys Ala Ile Cys Asp Lys Ser Leu Glu Val His Leu
      115             120             125
Gln Val Asp Ala Met Tyr Thr Asn Val Lys Ile Thr Asn Ile Cys Ser
      130             135             140
Asp Gly Thr Leu Tyr Cys Gln Val Pro Cys Lys Gly Leu Asn Lys Leu
      145             150             155             160
Ser Asp Leu Leu Arg Lys Ile Glu Asp Tyr Phe His Cys Lys His Met
      165             170             175
Thr Ser Glu Cys Phe Val Ser Leu Pro Phe Cys Gly Lys Ile Cys Leu
      180             185             190
Phe His Cys Lys Gly Lys Trp Leu Arg Val Glu Ile Thr Asn Val His
      195             200             205
Ser Ser Arg Ala Leu Asp Val Gln Phe Leu Asp Ser Gly Thr Val Thr
      210             215             220
Ser Val Lys Val Ser Glu Leu Arg Glu Ile Pro Pro Arg Phe Leu Gln
      225             230             235             240
Glu Met Ile Ala Ile Pro Pro Gln Ala Ile Lys Cys Cys Leu Ala Asp
      245             250             255
Leu Pro Gln Ser Ile Gly Met Trp Thr Pro Asp Ala Val Leu Trp Leu
      260             265             270
Arg Asp Ser Val Leu Asn Cys Ser Asp Cys Ser Ile Lys Val Thr Lys
      275             280             285
Val Asp Glu Thr Arg Gly Ile Ala His Val Tyr Leu Phe Thr Pro Lys
      290             295             300
Asn Phe Pro Asp Pro His Arg Ser Ile Asn Arg Gln Ile Thr Asn Ala
      305             310             315             320
Asp Leu Trp Lys His Gln Lys Asp Val Phe Leu Ser Ala Ile Ser Ser
      325             330             335
Gly Ala Asp Ser Pro Asn Ser Lys Asn Gly Asn Met Pro Met Ser Gly
      340             345             350
Asn Thr Gly Glu Asn Phe Arg Lys Asn Leu Thr Asp Val Ile Lys Lys
      355             360             365
Ser Met Val Asp His Thr Ser Ala Phe Ser Thr Glu Glu Leu Pro Pro
      370             375             380
Pro Val His Leu Ser Lys Pro Gly Glu His Met Asp Val Tyr Val Pro
      385             390             395             400
Val Ala Cys His Pro Gly Tyr Phe Val Ile Gln Pro Trp Gln Glu Ile

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405 410 415
 His Lys Leu Glu Val Leu Met Glu Glu Met Ile Leu Tyr Tyr Ser Val
 420 425 430
 Ser Glu Glu Arg His Ile Ala Val Glu Lys Asp Gln Val Tyr Ala Ala
 435 440 445
 Lys Val Glu Asn Lys Trp His Arg Val Leu Leu Lys Gly Ile Leu Thr
 450 455 460
 Asn Gly Leu Val Ser Val Tyr Glu Leu Asp Tyr Gly Lys His Glu Leu
 465 470 475 480
 Val Asn Ile Arg Lys Val Gln Pro Leu Val Asp Met Phe Arg Lys Leu
 485 490 495
 Pro Phe Gln Ala Val Thr Ala Gln Leu Ala Gly Val Lys Cys Asn Gln
 500 505 510
 Trp Ser Glu Glu Ala Ser Met Val Phe Arg Asn His Val Glu Lys Lys
 515 520 525
 Pro Leu Val Ala Leu Val Gln Thr Val Ile Glu Asn Ala Asn Pro Trp
 530 535 540
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<210> 3445

<211> 2086

<212> DNA

<213> Homo sapiens

<400> 3445

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<210> 3446

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3446

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           20           25           30
Met Asp Asp Glu Phe Gln Leu Leu Gln Arg Asn Phe Met Asp Lys Tyr
           35           40           45
Tyr Leu Glu Phe Glu Asp Thr Glu Glu Asn Lys Leu Ile Tyr Thr Pro
           50           55           60
Ile Phe Asn Glu Tyr Ile Ser Leu Val Glu Lys Tyr Ile Glu Glu Gln
65           70           75           80
Leu Leu Gln Arg Ile Pro Glu Phe Asn Met Ala Ala Phe Thr Thr Thr
           85           90           95
Leu His His Leu Phe Arg Leu Arg His His Lys Asp Glu Val Ala Gly
           100          105          110
Asp Ile Phe Asp Met Leu Leu Thr Phe Thr Asp Phe Leu Ala Phe Lys
           115          120          125
Glu Met Phe Leu Asp Tyr Arg Ala Glu Lys Glu Gly Arg Gly Leu Asp
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Leu Ser Ser Gly Leu Val Thr Ser Leu Cys Lys Ser Ser Ser Leu
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Pro Ala Ser Gln Asn Asn Leu Arg His
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<210> 3447

<211> 936

<212> DNA

<213> Homo sapiens

<400> 3447

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780

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<210> 3448

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3448

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			20					25					30		
Leu	Leu	Glu	Gly	Gln	Glu	Pro	Asp	Gly	Val	Arg	Phe	Asp	Arg	Glu	Arg
		35					40					45			
Ala	Arg	Arg	Leu	Trp	Glu	Ala	Val	Ser	Gly	Ala	Gln	Pro	Val	Gly	Arg
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Glu	Glu	Val	Glu	His	Met	Ile	Gln	Lys	Asn	Gln	Cys	Leu	Phe	Thr	Asn
65				70					75					80	
Thr	Gln	Cys	Lys	Val	Cys	Cys	Ala	Leu	Leu	Ile	Ser	Glu	Ser	Gln	Lys
			85					90						95	
Leu	Ala	His	Tyr	Gln	Ser	Lys	Lys	His	Ala	Asn	Lys	Val	Lys	Arg	Tyr
		100						105					110		
Leu	Ala	Ile	His	Gly	Met	Glu	Thr	Leu	Lys	Gly	Glu	Thr	Lys	Lys	Leu
		115					120					125			
Asp	Ser	Asp	Gln	Lys	Ser	Ser	Arg	Ser	Lys	Asp	Lys	Asn	Gln	Cys	Cys
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Pro	Ile	Cys	Asn	Met	Thr	Phe	Ser	Ser	Pro	Val	Val	Ala	Gln	Ser	His
145				150					155					160	
Tyr	Leu	Gly	Lys	Thr	His	Ala	Lys	Asn	Leu	Lys	Leu	Lys	Gln	Gln	Ser
			165					170					175		
Thr	Lys	Val	Glu	Ala	Leu	His	Gln	Asn	Arg	Glu	Met	Ile	Asp	Pro	Asp
		180						185					190		
Lys	Phe	Cys	Ser	Leu	Cys	His	Ala	Thr	Phe	Asn	Asp	Pro	Val	Met	Ala
	195					200						205			
Gln	Gln	His	Tyr	Val	Gly	Lys	Lys	His	Arg	Lys	Gln	Glu	Thr	Lys	Leu
	210					215					220				
Lys	Leu	Met	Ala	Arg	Tyr	Gly	Arg	Leu	Ala	Asp	Pro	Ala	Val	Thr	Asp
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Phe	Pro	Ala	Gly	Lys	Gly	Tyr	Pro	Cys	Lys	Thr	Cys	Lys	Ile	Val	Leu
			245					250					255		
Asn	Ser	Ile	Glu	Gln	Tyr	Gln	Ala	His	Val	Ser	Gly	Phe	Lys	His	Lys
		260					265						270		
Asn	Gln	Ser	Pro	Lys	Thr	Val	Ala	Ser	Ser	Leu	Gly	Gln	Ile	Pro	Met
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Gln	Arg	Gln	Pro	Ile	Gln	Lys	Asp	Ser	Thr	Thr	Leu	Glu	Asp		
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<210> 3449

<211> 877

<212> DNA

<213> Homo sapiens

<400> 3449

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<210> 3450

<211> 276

<212> PRT

<213> Homo sapiens

<400> 3450

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20     25     30
Ser Val Thr Ala Asn Ser Gln Ser Pro Ala Leu Leu Ala Gly Thr Asn
35     40     45
Pro Val Ala Val Val Ala Asp Gly Gly Ser Cys Pro Ala His Tyr Pro
50     55     60
Val His Glu Cys Val Phe Lys Gly Asp Val Arg Arg Leu Ser Ser Leu
65     70     75     80
Ile Arg Thr His Asn Ile Gly Gln Lys Asp Asn His Gly Asn Thr Pro
85     90     95
Leu His Leu Ala Val Met Leu Gly Asn Lys Glu Cys Ala His Leu Leu

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      100              105              110
Leu Ala His Asn Ala Pro Val Lys Val Lys Asn Ala Gln Gly Trp Ser
      115              120              125
Pro Leu Ala Glu Ala Ile Ser Tyr Gly Asp Arg Gln Met Ile Thr Ala
      130              135              140
Leu Leu Arg Lys Leu Lys Gln Gln Ser Arg Glu Ser Val Glu Glu Lys
145              150              155              160
Arg Pro Arg Leu Leu Lys Ala Leu Lys Glu Leu Gly Asp Phe Tyr Leu
      165              170              175
Glu Leu His Trp Asp Phe Gln Ser Trp Val Pro Leu Leu Ser Arg Ile
      180              185              190
Leu Pro Ser Asp Ala Cys Lys Ile Tyr Lys Gln Gly Ile Asn Ile Arg
      195              200              205
Leu Asp Thr Thr Leu Ile Asp Phe Thr Asp Met Lys Cys Gln Arg Gly
      210              215              220
Asp Leu Ser Phe Ile Phe Asn Gly Asp Ala Ala Pro Ser Glu Ser Phe
225              230              235              240
Val Val Leu Asp Asn Glu Gln Lys Val Tyr Gln Arg Ile His His Glu
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Ala His Ile Pro Gly Ile Arg Asp Gly Asn Arg Arg Arg Gly Gly Tyr
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Phe Asn Glu Gln
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<210> 3451
 <211> 595
 <212> DNA
 <213> Homo sapiens

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<400> 3451
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<210> 3452
 <211> 192
 <212> PRT

<213> Homo sapiens

<400> 3452

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      20           25           30
Glu Arg Gln Ser His Pro Ala Thr Gln Gln Gln Leu Gly Lys Thr Leu
      35           40           45
Gln Ser Lys Gln Leu Pro Gln Val Pro Arg Pro Leu Gln Leu Phe Ser
      50           55           60
Ala Lys Glu Leu Arg Asp Ser Ser Ile Asp Thr His Gln Tyr His Glu
65           70           75           80
Gly Leu Ser Lys Ala Thr Gln Asp Gln Ile Leu Gln Thr Leu Ile Gln
      85           90           95
Arg Val Arg Arg Gln Asn Leu Leu Ser Val Val Pro Pro Ser Gln Phe
      100          105          110
Asn Phe Ala His Ser Gly Phe Gln Leu Glu Asp Ile Ser Thr Ser Gln
      115          120          125
Arg Phe Met Leu Gly Phe Ala Gly Arg Arg Thr Ser Lys Pro Ala Met
      130          135          140
Ala Gly His Tyr Leu Leu Asn Ile Ser Thr Tyr Gly Arg Gly Ser Glu
145          150          155          160
Ser Phe Arg Arg Thr His Ser Val Asn Pro Glu Asp Arg Phe Cys Leu
      165          170          175
Ser Ser Pro Thr Glu Ala Leu Lys Met Gly Tyr Thr Asn Cys Lys Asn
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<210> 3453

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3453

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<210> 3454

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3454

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 Pro Val Ala Gln Gly Leu Lys Glu Ala Leu Val Asp Thr Leu Thr Gly
 35 40 45
 Ile Leu Ser Pro Val Gln Glu Val Arg Ala Ala Ala Glu Glu Gln Ile
 50 55 60
 Lys Val Leu Glu Val Thr Glu Glu Phe Gly Val His Leu Ala Glu Leu
 65 70 75 80
 Thr Val Asp Pro Gln Gly Ala Leu Ala Ile Arg Gln Leu Ala Ser Val
 85 90 95
 Ile Leu Lys Gln Tyr Val Glu Thr His Trp Cys Ala Gln Ser Glu Lys
 100 105 110
 Phe Arg Pro Pro Glu Thr Thr Glu Arg Ala Lys Ile Val Ile Arg Glu
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<210> 3455

<211> 4886

<212> DNA

<213> Homo sapiens

<400> 3455

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<210> 3456

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3456

Glu	Ile	Glu	Lys	Lys	Gly	Lys	Gly	Lys	Lys	Arg	Arg	Gly	Arg	Arg	Ser	1	5	10	15
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Pro	Pro	Cys	Pro	Arg	Leu	Asn	Gly	Val	Leu	Met	Glu	Val	Glu	Glu	Pro	35	40	45	
Glu	Val	Leu	Gln	Asp	Ser	Leu	Asp	Arg	Cys	Tyr	Ser	Thr	Pro	Ser	Met	50	55	60	
Tyr	Phe	Glu	Leu	Pro	Asp	Ser	Phe	Gln	His	Tyr	Arg	Ser	Val	Phe	Tyr	65	70	75	80
Ser	Phe	Glu	Glu	Glu	His	Ile	Ser	Phe	Ala	Leu	Tyr	Val	Asp	Asn	Arg	85	90	95	
Phe	Phe	Thr	Leu	Thr	Val	Thr	Ser	Leu	His	Leu	Val	Phe	Gln	Met	Gly	100	105	110	
Val	Ile	Phe	Pro	Gln															

115

<210> 3457

<211> 646

<212> DNA

<213> Homo sapiens

<400> 3457

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<210> 3458

<211> 61

<212> PRT

<213> Homo sapiens

<400> 3458

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Arg	Cys	Val	Xaa	Val	Pro	Gly	Cys	Val	Cys	Ala	Cys	Val	Cys	Val	Asp
				20					25					30	
Ile	Cys	Ala	Cys	Leu	Phe	Thr	His	Arg	Trp	Glu	Cys	Arg	Val	Cys	Ile
				35				40					45		
Leu	Cys	Xaa	Cys	Thr	Cys	Thr	Gln	Ala	Xaa	Ala	Gly	Lys			
				50			55				60				

<210> 3459

<211> 592

<212> DNA

<213> Homo sapiens

<400> 3459

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<210> 3460

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3460

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Ser	Gly	Pro	Ala	Arg	Ile	Pro	Val	Leu	Pro	Cys	Ser	Pro	Gln	Leu	Pro
			20					25					30		
Gly	Pro	Ser	Leu	Cys	Ala	Ala	Ser	Val	Cys	Leu	Leu	Gln	Asn	Lys	His
			35					40					45		
His	Ala	Pro	Ser	Trp	Ala	Glu	Ala	Pro	Ala	Asp	Ser	Pro	Arg	Ala	Leu
			50					55				60			
Gln	Ala	Cys	Pro	Val	Leu	Cys	Gln	Ala	Gly	Pro	Gly	His	Val	Pro	Ala
65				70						75				80	
Pro	Gly	Ala	Gly	Leu	Gln	Arg	Gly	Gln	Trp	Ser	Ala	Leu	Lys	Thr	Val
			85						90					95	
Ile	Pro	Ala	Arg	Pro	Ala	Leu	Pro	Cys	Ser	Ala	Arg	Gly	Gln	Phe	Glu
			100					105					110		
Leu	Lys	Leu													
			115												

<210> 3461

<211> 474

<212> DNA

<213> Homo sapiens

<400> 3461

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<210> 3462

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3462

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Leu	Leu	Gly	Gly	His	Trp	Leu	Arg	Ala	Gln	Gly	Tyr	Ala	Asn	Pro	Phe
		20						25					30		
Trp	Leu	Ala	Leu	Ala	Leu	Leu	Ile	Ala	Met	Thr	Leu	Tyr	Ala	Ala	Phe
		35					40					45			
Cys	Phe	Gly	Glu	Thr	Leu	Lys	Glu	Pro	Lys	Ser	Thr	Arg	Leu	Phe	Thr
	50					55				60					
Phe	Arg	His	His	Arg	Ser	Ile	Val	Gln	Leu	Tyr	Val	Ala	Pro	Ala	Pro
65					70					75				80	
Glu	Lys	Ser	Arg	Lys	His	Leu	Ala	Leu	Tyr	Ser	Leu	Ala	Ile	Phe	Val
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<210> 3463

<211> 1734

<212> DNA

<213> Homo sapiens

<400> 3463

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<210> 3464

<211> 434

<212> PRT

<213> Homo sapiens

<400> 3464

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 Glu Leu Pro Glu Arg Arg Arg Arg Gln Gln Arg Gln Gly Lys His His

35	40	45
Pro Asn Tyr Leu Met Ala Asn Glu Arg Met Asn Leu Met Asn Met Ala		
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Lys Leu Ser Ile Lys Gly Leu Ile Glu Ser Ala Leu Asn Leu Gly Arg		
65	70	75
Thr Leu Asp Ser Asp Tyr Ala Pro Leu Gln Gln Phe Phe Val Val Met		
85	90	95
Glu His Cys Leu Lys His Gly Leu Lys Ala Lys Lys Thr Phe Leu Gly		
100	105	110
Gln Asn Lys Ser Phe Trp Gly Pro Leu Glu Leu Val Glu Lys Leu Val		
115	120	125
Pro Glu Ala Ala Glu Ile Thr Ala Ser Val Lys Asp Leu Pro Gly Leu		
130	135	140
Lys Thr Pro Val Gly Arg Gly Arg Ala Trp Leu Arg Leu Ala Leu Met		
145	150	155
Gln Lys Lys Leu Ser Glu Tyr Met Lys Ala Leu Ile Asn Lys Lys Glu		
165	170	175
Leu Leu Ser Glu Phe Tyr Glu Pro Asn Ala Leu Met Met Glu Glu Glu		
180	185	190
Gly Ala Ile Ile Ala Gly Leu Leu Val Gly Leu Asn Val Ile Asp Ala		
195	200	205
Asn Phe Cys Met Lys Gly Glu Asp Leu Asp Ser Gln Val Gly Val Ile		
210	215	220
Asp Phe Ser Met Tyr Leu Lys Asp Gly Asn Ser Ser Lys Gly Thr Glu		
225	230	235
Gly Asp Gly Gln Ile Thr Ala Ile Leu Asp Gln Lys Asn Tyr Val Glu		
245	250	255
Glu Leu Asn Arg His Leu Asn Ala Thr Val Asn Asn Leu Gln Ala Lys		
260	265	270
Val Asp Ala Leu Glu Lys Ser Asn Thr Lys Leu Thr Glu Glu Leu Ala		
275	280	285
Val Ala Asn Asn Arg Ile Ile Thr Leu Gln Glu Glu Met Glu Arg Val		
290	295	300
Lys Glu Glu Ser Ser Tyr Ile Leu Glu Ser Asn Arg Lys Gly Pro Lys		
305	310	315
Gln Asp Arg Thr Ala Glu Gly Gln Ala Leu Ser Glu Ala Arg Lys His		
325	330	335
Leu Lys Glu Glu Thr Gln Leu Arg Leu Asp Val Glu Lys Glu Leu Glu		
340	345	350
Met Gln Ile Ser Met Arg Gln Glu Met Glu Leu Ala Met Lys Met Leu		
355	360	365
Glu Lys Asp Val Cys Glu Lys Gln Asp Ala Leu Val Ser Leu Arg Gln		
370	375	380
Gln Leu Asp Asp Leu Arg Ala Leu Lys His Glu Leu Ala Phe Lys Leu		
385	390	395
Gln Ser Ser Asp Leu Gly Val Lys Gln Lys Ser Glu Leu Asn Ser Arg		
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<210> 3465

<211> 2904

<212> DNA

<213> Homo sapiens

<400> 3465

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120
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<210> 3466

<211> 315

<212> PRT

<213> Homo sapiens

<400> 3466

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 20 25 30
 Gly Arg His Arg Lys Leu Pro Glu Asn Trp Thr Asp Thr Arg Glu Thr
 35 40 45
 Leu Leu Glu Gly Met Leu Phe Ser Leu Lys Tyr Leu Gly Met Thr Leu
 50 55 60
 Val Glu Gln Pro Lys Gly Glu Glu Leu Ser Ala Ala Ala Ile Lys Arg
 65 70 75 80
 Ile Val Ala Thr Ala Lys Ala Ser Gly Lys Lys Leu Gln Lys Val Thr
 85 90 95
 Leu Lys Val Ser Pro Arg Gly Ile Ile Leu Thr Asp Asn Leu Thr Asn
 100 105 110
 Gln Leu Ile Glu Asn Val Ser Ile Tyr Arg Ile Ser Tyr Cys Thr Ala
 115 120 125
 Asp Lys Met His Asp Lys Val Phe Ala Tyr Ile Ala Gln Ser Gln His
 130 135 140
 Asn Gln Ser Leu Glu Cys His Ala Phe Leu Cys Thr Lys Arg Lys Met
 145 150 155 160
 Ala Gln Ala Val Thr Leu Thr Val Ala Gln Ala Phe Lys Val Ala Phe
 165 170 175
 Glu Phe Trp Gln Val Ser Lys Glu Glu Lys Glu Lys Arg Asp Lys Ala
 180 185 190
 Ser Gln Glu Gly Gly Asp Val Leu Gly Ala Arg Gln Asp Cys Thr Pro
 195 200 205
 Pro Leu Lys Ser Leu Val Ala Thr Gly Asn Leu Leu Asp Leu Glu Glu
 210 215 220
 Thr Ala Lys Ala Pro Leu Ser Thr Val Ser Ala Asn Thr Thr Asn Met
 225 230 235 240
 Asp Glu Val Pro Arg Pro Gln Ala Leu Ser Gly Ser Ser Val Val Trp
 245 250 255
 Glu Leu Asp Asp Gly Leu Asp Glu Ala Phe Ser Arg Leu Ala Gln Ser
 260 265 270
 Arg Thr Asn Pro Gln Val Leu Asp Thr Gly Leu Thr Ala Gln Asp Met
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 His Tyr Ala Gln Cys Leu Ser Pro Val Asp Trp Asp Lys Pro Asp Ser
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 Ser Gly Thr Glu Gln Asp Asp Leu Phe Ser Phe
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<210> 3467

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3467

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 180

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 480
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<210> 3468

<211> 88

<212> PRT

<213> Homo sapiens

<400> 3468

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Tyr	Asp	Phe	Pro	Pro	Leu	Cys	Met	Ser	Gly	Leu	His	Asp	Phe	Gln	Phe
			20					25					30		
Trp	Leu	Cys	Tyr	Thr	Ser	Cys	Tyr	Gln	Gln	Asn	Arg	Val	Ser	Leu	Gly
		35					40					45			
Gln	Ser	Cys	Gly	Tyr	Thr	Ser	Val	Ser	Gln	Asp	Phe	Leu	Cys	Gln	Arg
	50					55				60					
Ala	Val	Lys	Leu	Arg	Thr	Lys	Val	Ile	Lys	Ile	Gln	Leu	Tyr	Tyr	Trp
65					70				75					80	
Ile	Val	Leu	Asp	Cys	Phe	Ser	Ser								
				85											

<210> 3469

<211> 1710

<212> DNA

<213> Homo sapiens

<400> 3469

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 360

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<210> 3470

<211> 322

<212> PRT

<213> Homo sapiens

<400> 3470

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      20           25           30
Pro Asp Glu Asp Leu Ser His Arg Asn Lys Glu Pro Pro Ala Pro Ala
      35           40           45
Gln Gln Leu Gln Pro Gln Pro Val Ala Val Gln Gly Pro Glu Pro Ala
      50           55           60
Arg Val Glu Lys Ile Phe Thr Pro Ala Ala Pro Val His Thr Asn Lys
      65           70           75           80
Glu Asp Pro Ala Thr Gln Thr Asn Leu Gly Phe Ile His Ala Phe Val
      85           90           95
Ala Ala Ile Ser Val Ile Ile Val Ser Glu Leu Gly Asp Lys Thr Phe
      100           105           110
Phe Ile Ala Ala Ile Met Ala Met Arg Tyr Asn Arg Leu Thr Val Leu
      115           120           125
Ala Gly Ala Met Leu Ala Leu Gly Leu Met Thr Cys Leu Ser Val Leu
      130           135           140
Phe Gly Tyr Ala Thr Thr Val Ile Pro Arg Val Tyr Thr Tyr Tyr Val
      145           150           155           160
Ser Thr Val Leu Phe Ala Ile Phe Gly Ile Arg Met Leu Arg Glu Gly
      165           170           175
Leu Lys Met Ser Pro Asp Glu Gly Gln Glu Glu Leu Glu Glu Val Gln
      180           185           190
Ala Glu Leu Lys Lys Lys Asp Glu Glu Phe Gln Arg Thr Lys Leu Leu
      195           200           205
Asn Gly Pro Gly Asp Val Glu Thr Gly Thr Ser Ile Thr Val Pro Gln
      210           215           220
Lys Lys Trp Leu His Phe Ile Ser Pro Ile Phe Val Gln Ala Leu Thr
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Leu Thr Phe Leu Ala Glu Trp Gly Asp Arg Ser Gln Leu Thr Thr Ile
      245           250           255
Val Leu Ala Ala Arg Glu Asp Pro Tyr Gly Val Ala Val Gly Gly Thr
      260           265           270
Val Gly His Cys Leu Cys Thr Gly Leu Ala Val Ile Gly Gly Arg Met
      275           280           285
Ile Ala Gln Lys Ile Ser Val Arg Thr Val Thr Ile Ile Gly Gly Ile
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Gly Phe

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<210> 3471

<211> 2335

<212> DNA

<213> Homo sapiens

<400> 3471

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120
gagaagtgcc gtagcgacac ggagatcctg ccctccctgt tcatgcgctg caccaccgac
180

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1800

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<210> 3472

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3472

Gly	Arg	Val	Ala	Leu	Ala	Asp	Ile	Ala	Phe	Thr	Gly	Gly	Gly	Asn	Ile
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Val	Val	Ala	Thr	Ala	Asp	Gly	Ser	Ser	Ala	Ser	Pro	Val	Gln	Phe	Tyr
			20						25				30		
Lys	Val	Cys	Val	Ser	Val	Val	Ser	Glu	Lys	Cys	Arg	Ile	Asp	Thr	Glu
		35					40					45			
Ile	Leu	Pro	Ser	Leu	Phe	Met	Arg	Cys	Thr	Thr	Asp	Leu	Asn	Arg	Lys
	50					55					60				
Asp	Lys	Phe	Pro	Ala	Ile	Thr	His	Leu	Lys	Phe	Leu	Ala	Arg	Asp	Met
65					70					75				80	
Ser	Glu	Gln	Val	Leu	Leu	Cys	Ala	Ser	Ser	Gln	Thr	Ser	Ser	Ile	Val
				85					90					95	
Glu	Cys	Trp	Ser	Leu	Arg	Lys	Glu	Gly	Leu	Pro	Val	Asn	Asn	Ile	Phe
			100					105					110		
Gln	Gln	Ile	Ser	Pro	Val	Val	Gly	Asp	Lys	Gln	Pro	Thr	Ile	Leu	Lys
		115					120					125			
Trp	Arg	Ile	Leu	Ser	Ala	Thr	Asn	Asp	Leu	Asp	Arg	Val	Ser	Ala	Val
	130					135					140				
Ala	Leu	Pro	Lys	Leu	Pro	Ile	Ser	Leu	Thr	Asn	Thr	Asp	Leu	Lys	Val
145					150					155				160	
Ala	Ser	Asp	Thr	Gln	Phe	Tyr	Pro	Gly	Leu	Gly	Leu	Ala	Leu	Ala	Phe
				165					170					175	
His	Asp	Gly	Ser	Val	His	Ile	Val	His	Arg	Leu	Ser	Leu	Gln	Thr	Met
		180						185					190		
Ala	Val	Phe	Tyr	Ser	Ser	Ala	Ala	Pro	Arg	Pro	Val	Asp	Glu	Pro	Ala
	195						200					205			
Met	Lys	Arg	Pro	Arg	Thr	Ala	Gly	Pro	Ala	Val	His	Leu	Lys	Ala	Met
210						215					220				
Gln	Leu	Ser	Trp	Thr	Ser	Leu	Ala	Leu	Val	Gly	Ile	Asp	Ser	His	Gly

225 230 235 240
 Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu
 245 250 255
 Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met
 260 265 270
 Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser
 275 280 285
 Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln
 290 295 300
 Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys
 305 310 315 320
 Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp
 325 330 335
 Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser
 340 345 350
 Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp
 355 360 365
 Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys
 370 375 380
 Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr
 385 390 395 400
 Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu
 405 410 415
 Tyr Leu Leu Ala Ser Leu Pro Asn Gln Gly Ser Leu Leu Arg Pro Gly
 420 425 430
 His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu
 435 440 445
 Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro
 450 455 460
 Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe
 465 470 475 480
 Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala
 485 490 495
 Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser
 500 505 510
 Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu
 515 520 525
 Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg
 530 535 540
 Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu
 545 550 555 560
 Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His
 565 570 575
 Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly
 580 585 590
 Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln
 595 600 605
 Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Cys Gly Gly Leu Trp Trp
 610 615 620
 Arg Val Pro Leu Ser Tyr Pro
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<210> 3473

<211> 1660

<212> DNA

<213> Homo sapiens

<400> 3473

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120
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240
cggcactgct gtcagaagtg ctacgagtc agctgttgcc agtcaagtga ggatgaagtt
300
gaaattctgg gacctttccc tgctcagacc cctccctggc tgatggccag ccggagcagt
360
gacaaggatg gtgactctgt ccacacggcc agcgaagtcc cgctgacccc acggaccaat
420
tccccggatg gaagacgctc gtcctcagac acatccaagt ctacatacag cctgacgcgg
480
aggatttcga gtcttgagtc aagacgtccc agctctccac tcatcgatat taaacccatc
540
gagtttggcg ttctcagcgc caagaaggag cccatccaac cttcgggtgct cagacggacc
600
tataacccccg acgactatct caggaagttc gaacccccacc tgtactccct cgactccaac
660
agcgacgatg tggactctct gacagacgag gagatcctgt ccaagtacca gctgggcatg
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780
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900
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960
gaggcccaga ggaggacct gctcctgacc gtggtggatt ttgataagtt ctcccgccac
1020
tgtgtcattg ggaaagtttc tgtgcctttg tgtgaagttg acctggtcaa gggcgggcac
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1140
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1200
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<210> 3474

<211> 474

<212> PRT

<213> Homo sapiens

<400> 3474

Met	Ala	Tyr	Ile	Gln	Leu	Glu	Pro	Leu	Asn	Glu	Gly	Phe	Leu	Ser	Arg
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Ile	Ser	Gly	Leu	Leu	Cys	Arg	Trp	Thr	Cys	Arg	His	Cys	Cys	Gln	
			20				25					30			
Lys	Cys	Tyr	Glu	Ser	Ser	Cys	Cys	Gln	Ser	Ser	Glu	Asp	Glu	Val	Glu
			35				40					45			
Ile	Leu	Gly	Pro	Phe	Pro	Ala	Gln	Thr	Pro	Pro	Trp	Leu	Met	Ala	Ser
	50					55					60				
Arg	Ser	Ser	Asp	Lys	Asp	Gly	Asp	Ser	Val	His	Thr	Ala	Ser	Glu	Val
65					70					75				80	
Pro	Leu	Thr	Pro	Arg	Thr	Asn	Ser	Pro	Asp	Gly	Arg	Arg	Ser	Ser	Ser
				85					90					95	
Asp	Thr	Ser	Lys	Ser	Thr	Tyr	Ser	Leu	Thr	Arg	Arg	Ile	Ser	Ser	Leu
			100					105					110		
Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu
			115				120					125			
Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu
	130					135					140				
Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His
145					150					155				160	
Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp
				165					170					175	
Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	Leu	Gly	Met	Leu	His	Phe	Ser	Thr
			180					185					190		
Gln	Tyr	Asp	Leu	Leu	His	Asn	His	Leu	Thr	Val	Arg	Val	Ile	Glu	Ala
			195				200						205		
Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	His	Asp	Gly	Ser	Arg	Gln	Asp	Met
	210					215					220				
Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys
225					230					235				240	
Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe
				245					250					255	
Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg
			260					265					270		
Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	Phe	Asp	Lys	Phe	Ser	Arg	His	Cys
			275				280					285			
Val	Ile	Gly	Lys	Val	Ser	Val	Pro	Leu	Cys	Glu	Val	Asp	Leu	Val	Lys
	290					295					300				
Gly	Gly	His	Trp	Trp	Lys	Ala	Leu	Ile	Pro	Ser	Ser	Gln	Asn	Glu	Val
305					310					315				320	
Glu	Leu	Gly	Glu	Leu	Leu	Leu	Ser	Leu	Asn	Tyr	Leu	Pro	Ser	Ala	Gly

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          325          330          335
Arg Leu Asn Val Asp Val Ile Arg Ala Lys Gln Leu Leu Gln Thr Asp
          340          345          350
Val Ser Gln Gly Ser Asp Pro Phe Val Lys Ile Gln Leu Val His Gly
          355          360          365
Leu Lys Leu Val Lys Thr Lys Lys Thr Ser Phe Leu Arg Gly Thr Ile
          370          375          380
Asp Pro Phe Tyr Asn Glu Ser Phe Ser Phe Lys Val Pro Gln Glu Glu
385          390          395          400
Leu Glu Asn Ala Ser Leu Val Phe Thr Val Phe Gly His Asn Met Lys
          405          410          415
Ser Ser Asn Asp Phe Ile Gly Arg Ile Val Ile Gly Gln Tyr Ser Ser
          420          425          430
Gly Pro Ser Glu Thr Asn His Trp Arg Arg Met Leu Asn Thr His Arg
          435          440          445
Thr Ala Val Glu Gln Trp His Ser Leu Arg Ser Arg Ala Glu Cys Asp
          450          455          460
Arg Val Ser Pro Ala Ser Leu Glu Val Thr
465          470

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<210> 3475

<211> 514

<212> DNA

<213> Homo sapiens

<400> 3475

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120
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300
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420
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514

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<210> 3476

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3476

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Thr Arg Leu Glu Gly Trp Phe Phe Cys Thr Pro Ala Arg Lys Leu Leu
  1           5           10           15
Trp Leu Val Leu Gln Pro Phe Phe Tyr Ser Leu Arg Pro Leu Cys Val

```

```

                20                25                30
His Pro Lys Ala Val Thr Arg Met Glu Val Leu Asn Thr Leu Val Gln
      35                40                45
Leu Ala Ala Asp Leu Ala Ile Phe Ala Leu Trp Gly Leu Lys Pro Val
      50                55                60
Val Tyr Leu Leu Ala Ser Ser Phe Leu Gly Leu Gly Leu His Pro Ile
      65                70                75                80
Ser Gly His Phe Val Ala Glu His Tyr Met Phe Leu Lys Gly His Glu
      85                90                95
Thr Tyr Ser Tyr Tyr Gly Pro Leu Asn Trp Ile Thr Phe Asn Val Gly
      100                105                110
Tyr His Val Glu His His Asp Phe Pro Ser Ile Pro Gly Tyr Asn Leu
      115                120                125
Pro Leu Val Arg Lys Ile Ala Pro Glu Tyr Tyr Asp His Leu Pro Gln
      130                135                140
His His Ser Trp Val Lys Val Leu Trp Asp Phe Val Phe Glu Asp Ser
      145                150                155                160
Leu Gly Pro Tyr Ala Arg Val Lys Arg Val Tyr
      165                170

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<210> 3477

<211> 356

<212> DNA

<213> Homo sapiens

<400> 3477

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gcgcgcctcg gctgcctgcc cggcggtctc cgggtcctcg tccagaccgg ccaccggagc
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120
gtggcctttg actttgtgc cggagagatg gctccaaata tggcagagtg ggaccagaag
180
gtaggcgttt ttcttgtgct tagacgttct aacaacagat gtctcaggca gacctttatc
240
tttgtctccc gataatgtaa ttgttaaag tctcctccac ttaccaactc ttactgcaag
300
tgagaatacc ggtagtggat gatttttctt agaaggcatc ctgatcatct tgtaca
356

```

<210> 3478

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3478

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Met Ile Arg Met Pro Ser Arg Lys Asn His Pro Leu Pro Val Phe Ser
  1                5                10                15
Leu Ala Val Arg Val Gly Lys Trp Arg Arg His Leu Thr Ile Thr Leu
      20                25                30
Ser Gly Asp Lys Asp Lys Gly Leu Pro Glu Thr Ser Val Val Arg Thr
      35                40                45
Ser Lys His Lys Lys Asn Ala Tyr Leu Leu Val Pro Leu Cys His Ile
      50                55                60
Trp Ser His Leu Ser Gly Ser Lys Val Lys Gly His Phe Leu Lys Phe

```

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<210> 3479
<211> 797
<212> DNA
<213> Homo sapiens
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<210> 3480
<211> 192
<212> PRT
<213> Homo sapiens
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2648

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<210> 3481
<211> 1794
<212> DNA
<213> Homo sapiens
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2649

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 960
 tctggccctg gccaaagcgac tagccatgct gcggggacag gaccccgaga gactgaccct
 1020
 ccaggactat cgcctcccag acagtgatga cgacgaggat gaggagacag ccatccaaag
 1080
 agtcctgcag cagctcactg aagaagcttc cctggatgag gcaagtggct ttaacatccc
 1140
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 1200
 tgtggacccc aggcctgagg ctgaggaaga ggagctcccc tgggtgctgca tctgcaatga
 1260
 ggatgccacc ctacgtgctg ctggctgcta tggggacctc ttctgtgccc gctgcttcg
 1320
 agagggccat gatgcctttg agcttaaaga gcaccagaca tctgcctact ctctccacg
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 1440
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 1500
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 1560
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 1620
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 1680
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 1740
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 1794

<210> 3482

<211> 206

<212> PRT

<213> Homo sapiens

<400> 3482

Met	Pro	Pro	Ser	Gly	His	His	Leu	Ser	Ser	Ala	Asp	Pro	Ala	Val	Leu
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Gly	Ala	Thr	Met	Glu	Ser	Arg	Cys	Tyr	Gly	Cys	Ala	Val	Lys	Phe	Thr
		20					25					30			
Leu	Phe	Lys	Lys	Glu	Tyr	Gly	Cys	Lys	Asn	Cys	Gly	Arg	Xaa	Phe	Cys
		35				40					45				
Ser	Gly	Cys	Leu	Ser	Phe	Ser	Ala	Ala	Val	Pro	Arg	Thr	Gly	Asn	Thr
		50				55				60					
Gln	Gln	Lys	Val	Cys	Lys	Gln	Cys	His	Glu	Val	Leu	Thr	Arg	Gly	Ser
65				70					75				80		
Ser	Ala	Asn	Ala	Ser	Lys	Trp	Ser	Pro	Pro	Gln	Asn	Tyr	Lys	Lys	Arg
		85					90						95		
Val	Ala	Ala	Leu	Glu	Ala	Lys	Gln	Lys	Pro	Ser	Thr	Ser	Gln	Ser	Gln
		100					105					110			
Gly	Leu	Thr	Arg	Gln	Asp	Gln	Met	Ile	Ala	Glu	Arg	Leu	Ala	Arg	Leu

115	120	125
Arg Gln Glu Asn Lys Pro Lys Leu Val Pro Ser Gln Ala Glu Ile Glu		
130	135	140
Ala Arg Leu Ala Ala Leu Lys Asp Glu Arg Gln Gly Ser Ile Pro Ser		
145	150	155
Thr Gln Glu Met Glu Ala Arg Leu Ala Ala Leu Gln Gly Arg Val Leu		
165	170	175
Pro Ser Gln Thr Pro Gln Pro Gly Thr Ser His Thr Gly His Gln Asp		
180	185	190
Pro Ser Pro Ala Asp Thr Gly Ser Ala Asn Ala Ala Gly Ser		
195	200	205

<210> 3483

<211> 477

<212> DNA

<213> Homo sapiens

<400> 3483

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120
aagtacccgg ccatcaaggc cctgatgcgg ccagaccgc gcctcaagtg ggcggggctg
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cagcatctt cgcacaacgc ggccttcggc acggggcctg cggcacgcaa ccgctggctg
360
gccgtgttcg ccaacctgcc cgtgggtgtg ccctacgccg cctccttcaa gaagtaccac
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477

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<210> 3484

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3484

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Gln Pro His Thr Gln Arg Arg Lys Glu Ile Leu Ala Lys Tyr Pro Ala		
20	25	30
Ile Lys Ala Leu Met Arg Pro Asp Pro Arg Leu Lys Trp Ala Gly Leu		
35	40	45
Val Leu Val Leu Val Gln Met Leu Ala Cys Trp Leu Val Arg Gly Leu		
50	55	60
Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val		
65	70	75
Asn His Ser Leu Thr Leu Ala Ile His Asp Ile Ser His Asn Ala Ala		
85	90	95
Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg Trp Leu Ala Val Phe Ala		


```

          100          105          110
Asn Leu Pro Val Gly Val Pro Tyr Ala Ala Ser Phe Lys Lys Tyr His
          115          120          125
Val Asp His His Arg Tyr Leu Gly Gly Asp Gly Leu Asp Val Asp Val
          130          135          140
Pro Thr Arg
145

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<210> 3485
 <211> 812
 <212> DNA
 <213> Homo sapiens

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<400> 3485
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tgcagtctta aaacatttaa ttttctatta tacagttaaa catttgcttg aattcagtga
120
gtctaaaaaa tcttattggt ctcaggttag cagttagttg agcagagtcc attggtgaag
180
caatctagtt attggcaaat tctaacacat ggtaaggtgt gggggaaagg atttaaaata
240
acagaaaaat gtaagtacaa acatacataa cagcaaaata aaactcactt taacaaaaat
300
ttatttaaaa tgttaccccc atatttcctc aatgaccaac ttgtttcagt tttatctccc
360
cctcatccgg ttattttatg tctttttggg aggaaggagg atgaggggtt ttgtttttta
420
acaaaatcac tggcttttta aaaagtgtta ctgcagtcac ttataagatg catgttatgt
480
ggaagtgata cctgagttgt ttgcatgggc aatggaagag gcagcagctc tgaaaggagt
540
atgagtccag aaaaaaatcc ttcaggaacc ttcaagattg aagaaagaac ttcttttaac
600
attaaagacc aagtattatt ggccagagtc tcttctgaga ttgtgagttt ttcattaact
660
ccttggtgtaa aagtcagtaa aatatcaatg atatcattct gaattttctg ttcatcacta
720
tccaaacgac ctgagagggg gatagagcac aggagcatat gtaaagtaac aagcgctgaa
780
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812

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<210> 3486
 <211> 117
 <212> PRT
 <213> Homo sapiens

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<400> 3486
Met Arg Val Pro Ser Ala Leu Val Thr Leu His Met Leu Leu Cys Ser
  1          5          10          15
Ile Pro Leu Ser Gly Arg Leu Asp Ser Asp Glu Gln Lys Ile Gln Asn
          20          25          30
Asp Ile Ile Asp Ile Leu Leu Thr Phe Thr Gln Gly Val Asn Glu Lys

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<210> 3487
<211> 772
<212> DNA
<213> Homo sapiens
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<210> 3488
<211> 59
<212> PRT
<213> Homo sapiens
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2653

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 35 40 45
 Phe Asn Pro Val Thr Glu Ile Ser Ile Cys Thr
 50 55

<210> 3489
 <211> 288
 <212> DNA
 <213> Homo sapiens

<400> 3489
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 120
 gcccgagggtg ccccatgagg cctgggtggtt ggaggcagag ggtatccctt gcccaaattc
 180
 gtgccacatt cacagtcact gggaaagcta cggggatggg ccgggcgcg tggctcacac
 240
 ctgtaatccc agcactttgg agagccccaa gacgacggat cagcagtc
 288

<210> 3490
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 3490
 Met Gly Ala His Leu Leu Pro Gly Pro Gly Arg Pro Gly Arg Pro Gly
 1 5 10 15
 Arg Pro Gly Leu Ala Pro Asn Ser Lys Ala His Leu Arg Gly Glu Ile
 20 25 30
 Gln Ala Gln Pro Arg Val Pro His Glu Ala Trp Trp Leu Glu Ala Glu
 35 40 45
 Gly Ile Pro Cys Pro Asn Ser Cys His Ile His Ser His Trp Glu Ser
 50 55 60
 Tyr Gly Asp Gly Pro Gly Ala Val Ala His Thr Cys Asn Pro Ser Thr
 65 70 75 80
 Leu Glu Ser Pro Lys Thr Thr Asp His Glu
 85 90

<210> 3491
 <211> 568
 <212> DNA
 <213> Homo sapiens

<400> 3491
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 60
 gacaaggaca gcatctgctt ttgggactgg gagaaagggg agaagctgga ttatttccac
 120
 aatgggaacc ctcggtacac gagggtcact gccatggagt atctgaatgg ccaggactgc
 180

tcgcttctgc tgacggccac agacgatggg gccatcaggg tctggaagaa ttttgctgat
 240
 ttggaaaaga acccagagat ggtgaccgcg tggcaggggc tctcggacat gctgccaacg
 300
 acgcgaggag ctgggatggg ggtggactgg gagcaggaga ccggcctcct catgagctca
 360
 ggagacgtgc ggatcgctcc gatctgggac acagaccgtg agatgaaggt gcaggacatc
 420
 cctacggggcg cagacagctg tgtgacgagt ctgtcctgtg attcccaccg ctcactcacc
 480
 gtggctggcc tcggtgacgg ctccatccgc gtctacgaca gaaggatggc actcagcgaa
 540
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 568

<210> 3492

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3492

Gly	Asn	Arg	Arg	Pro	Ser	Val	Val	Lys	Phe	His	Pro	Phe	Thr	Pro	Cys
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Ile	Ala	Val	Ala	Asp	Lys	Asp	Ser	Ile	Cys	Phe	Trp	Asp	Trp	Glu	Lys
		20						25					30		
Gly	Glu	Lys	Leu	Asp	Tyr	Phe	His	Asn	Gly	Asn	Pro	Arg	Tyr	Thr	Arg
		35					40					45			
Val	Thr	Ala	Met	Glu	Tyr	Leu	Asn	Gly	Gln	Asp	Cys	Ser	Leu	Leu	Leu
		50				55					60				
Thr	Ala	Thr	Asp	Asp	Gly	Ala	Ile	Arg	Val	Trp	Lys	Asn	Phe	Ala	Asp
65					70					75				80	
Leu	Glu	Lys	Asn	Pro	Glu	Met	Val	Thr	Ala	Trp	Gln	Gly	Leu	Ser	Asp
			85						90				95		
Met	Leu	Pro	Thr	Thr	Arg	Gly	Ala	Gly	Met	Val	Val	Asp	Trp	Glu	Gln
		100						105					110		
Glu	Thr	Gly	Leu	Leu	Met	Ser	Ser	Gly	Asp	Val	Arg	Ile	Val	Arg	Ile
		115					120					125			
Trp	Asp	Thr	Asp	Arg	Glu	Met	Lys	Val	Gln	Asp	Ile	Pro	Thr	Gly	Ala
		130				135						140			
Asp	Ser	Cys	Val	Thr	Ser	Leu	Ser	Cys	Asp	Ser	His	Arg	Ser	Leu	Ile
145					150					155				160	
Val	Ala	Gly	Leu	Gly	Asp	Gly	Ser	Ile	Arg	Val	Tyr	Asp	Arg	Arg	Met
			165					170					175		
Ala	Leu	Ser	Glu	Cys	Arg	Val	Met	Thr	Tyr	Arg	Glu	His			
		180						185							

<210> 3493

<211> 2244

<212> DNA

<213> Homo sapiens

<400> 3493

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120
aatcactctg aaagatcaga caatagatca gaagcttctg agcggttctga ccatgaggac
180
aatgaccctt cagatgtaga tcagcacagt ggatcagaag cccctaataa tgatgaagac
240
gaaggtcata gatcggatgg agggagccat cattcagaag cagaagggtc tgaaaaagca
300
cattcagatg atgaaaaatg gggcagagaa gataaaagt accagtcaga tgatgaaaag
360
atacaaaatt ctgatgatga ggagagggca caaggatctg atgaagataa gctgcagaat
420
tctgacgatg atgagaaaat gcagaacaca gatgatgagg agaggcctca gctttccgat
480
gatgagagac aacagctatc tgaggaggaa aaggctaatt ctgatgatga acggccggta
540
gcttctgata atgatgatga gaaacagaat tctgatgatg aagaacaacc acagctgtct
600
gatgaagaga aaatgcaaaa ttctgatgat gaaaggccac aggccccaga tgaagaacac
660
aggcattcag atgatgaaga ggaacaggat cataaatcag aatccgcaag aggcagtgat
720
agtgaagatg aagttttacg aatgaaacgc aagaatgcga ttgcatctga ttcagaagcg
780
gatagtgaac ctgagggtgcc aaaagataat agtggaaacca tggatttatt tggagggtga
840
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900
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gaagtagaaa tacccaaagt aaacactgat ttaggaaacg acttatattt tgttaaactg
1020
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1080
gaagatgaag aaatgctgga tgaagaagggt agaaccagggt taaaattaaa ggtagaaaat
1140
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1200
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1260
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1320
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1380
gccacacata gaaagatgac tctgtcactt gcagatagggt gttcaaagac acagaagatt
1440
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1560
aaacagcacc agcgggggct gagcgccagt tacctggaac ctgatcgata cgatgaggag
1620
gaggaaggcg aggagtcctc cagcttggtt gccattaaaa accgatataa agggggcatt
1680

cgagaggaac gagccagaat ctattcatca gacagtgatg agggatcaga agaagataaa
 1740
 gctcaaagat tactcaaagc aaagaaactt accagtgatg aggaaggatga accttccgga
 1800
 aagagaaaag cagaagatga tgataaagca aataaaaagc ataagaagta tgtgatcagc
 1860
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 1920
 ttgtacagtt ataaatatgt aaacatgagt tatttttgatt gaaatgaatc gatttgcttt
 1980
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 2040
 cttttccggc caggcgcggt ggctcatgcc tgtaatccca gcacttcggg aggccgaggg
 2100
 aggtggatca caaggtcgtg gtggcggggtg cctgtagtcg cagctactcg ggaggctgag
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 2220
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 2244

<210> 3494

<211> 628

<212> PRT

<213> Homo sapiens

<400> 3494

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Gln	Pro	Ser	Asn	Lys	Glu	Leu	Phe	Gly	Asp	Asp	Ser	Glu	Asp	Glu	Gly
			20					25					30		
Ala	Ser	His	His	Ser	Gly	Ser	Asp	Asn	His	Ser	Glu	Arg	Ser	Asp	Asn
		35					40					45			
Arg	Ser	Glu	Ala	Ser	Glu	Arg	Ser	Asp	His	Glu	Asp	Asn	Asp	Pro	Ser
	50					55					60				
Asp	Val	Asp	Gln	His	Ser	Gly	Ser	Glu	Ala	Pro	Asn	Asp	Asp	Glu	Asp
65				70						75				80	
Glu	Gly	His	Arg	Ser	Asp	Gly	Gly	Ser	His	Ser	Glu	Ala	Glu	Gly	
			85					90					95		
Ser	Glu	Lys	Ala	His	Ser	Asp	Asp	Glu	Lys	Trp	Gly	Arg	Glu	Asp	Lys
		100						105				110			
Ser	Asp	Gln	Ser	Asp	Asp	Glu	Lys	Ile	Gln	Asn	Ser	Asp	Asp	Glu	Glu
	115					120						125			
Arg	Ala	Gln	Gly	Ser	Asp	Glu	Asp	Lys	Leu	Gln	Asn	Ser	Asp	Asp	Asp
	130					135					140				
Glu	Lys	Met	Gln	Asn	Thr	Asp	Asp	Glu	Glu	Arg	Pro	Gln	Leu	Ser	Asp
145				150						155				160	
Asp	Glu	Arg	Gln	Gln	Leu	Ser	Glu	Glu	Glu	Lys	Ala	Asn	Ser	Asp	Asp
			165					170					175		
Glu	Arg	Pro	Val	Ala	Ser	Asp	Asn	Asp	Glu	Lys	Gln	Asn	Ser	Asp	
	180						185					190			
Asp	Glu	Glu	Gln	Pro	Gln	Leu	Ser	Asp	Glu	Glu	Lys	Met	Gln	Asn	Ser
	195					200						205			
Asp	Asp	Glu	Arg	Pro	Gln	Ala	Pro	Asp	Glu	Glu	His	Arg	His	Ser	Asp

210	215	220
Asp Glu Glu Glu Gln	Asp His Lys Ser Glu	Ser Ala Arg Gly Ser Asp
225	230	235
Ser Glu Asp Glu Val	Leu Arg Met Lys Arg	Lys Asn Ala Ile Ala Ser
245	250	255
Asp Ser Glu Ala Asp	Ser Asp Thr Glu Val	Pro Lys Asp Asn Ser Gly
260	265	270
Thr Met Asp Leu Phe	Gly Gly Ala Asp Asp	Ile Ser Ser Gly Ser Asp
275	280	285
Gly Glu Asp Lys Pro	Pro Thr Pro Gly Gln	Pro Val Asp Glu Asn Gly
290	295	300
Leu Pro Gln Asp Gln	Gln Glu Glu Glu Pro	Ile Pro Glu Thr Arg Ile
305	310	315
Glu Val Glu Ile Pro	Lys Val Asn Thr Asp	Leu Gly Asn Asp Leu Tyr
325	330	335
Phe Val Lys Leu Pro	Asn Phe Leu Ser Val	Glu Pro Arg Pro Phe Asp
340	345	350
Pro Gln Tyr Thr Glu	Asp Glu Phe Glu Asp	Glu Glu Met Leu Asp Glu
355	360	365
Glu Gly Arg Thr Arg	Leu Lys Leu Lys Val	Glu Asn Thr Ile Arg Trp
370	375	380
Arg Ile Arg Arg Asp	Glu Glu Gly Asn Glu	Ile Lys Glu Ser Asn Ala
385	390	395
Arg Ile Val Lys Trp	Ser Asp Gly Ser Met	Ser Leu His Leu Gly Asn
405	410	415
Glu Val Phe Asp Val	Tyr Lys Ala Pro Leu	Gln Gly Asp His Asn His
420	425	430
Leu Phe Ile Arg Gln	Gly Thr Gly Leu Gln	Gly Gln Ala Val Phe Lys
435	440	445
Ala Lys Leu Thr Phe	Arg Pro His Ser Thr	Asp Ser Ala Thr His Arg
450	455	460
Lys Met Thr Leu Ser	Leu Ala Asp Arg Cys	Ser Lys Thr Gln Lys Ile
465	470	475
Arg Ile Leu Pro Met	Ala Gly Arg Asp Pro	Glu Cys Gln Arg Thr Glu
485	490	495
Met Ile Lys Lys Glu	Glu Glu Arg Leu Arg	Ala Ser Ile Arg Arg Glu
500	505	510
Ser Gln Gln Arg Arg	Met Arg Glu Lys Gln	His Gln Arg Gly Leu Ser
515	520	525
Ala Ser Tyr Leu Glu	Pro Asp Arg Tyr Asp	Glu Glu Glu Glu Gly Glu
530	535	540
Glu Ser Ile Ser Leu	Ala Ala Ile Lys Asn	Arg Tyr Lys Gly Gly Ile
545	550	555
Arg Glu Glu Arg Ala	Arg Ile Tyr Ser Ser	Asp Ser Asp Glu Gly Ser
565	570	575
Glu Glu Asp Lys Ala	Gln Arg Leu Leu Lys	Ala Lys Lys Leu Thr Ser
580	585	590
Asp Glu Glu Gly Glu	Pro Ser Gly Lys Arg	Lys Ala Glu Asp Asp Asp
595	600	605
Lys Ala Asn Lys Lys	His Lys Lys Tyr Val	Ile Ser Asp Glu Glu Glu
610	615	620
Glu Asp Asp Asp		
625		

<210> 3495
 <211> 1085
 <212> DNA
 <213> Homo sapiens

<400> 3495
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 120
 gcgtccccgg aggagatcaa gaaggcctat cggaagctgg cgctcaagta ccaccggac
 180
 aagaaccgg atgagggcga gaagtttaa ctcatatccc aggcatatga agtgctttca
 240
 gatccaaaga aaagggatgt ttatgaccaa ggcggagagc aggcaattaa agaaggaggc
 300
 tcaggcagcc ccagcttctc ttcacccatg gacatctttg acatgttctt tgggtggtgg
 360
 ggacggatgg ctagagagag aagaggcaag aatgtgtac accagttatc tgtaactctt
 420
 gaagatctat ataatggagt cacgaagaaa ttggccctcc agaaaaatgt aatttgtgag
 480
 aaatgtgaag gtgttggtgg gaagaagga tcggtggaga agtgcccgt gtgcaagggg
 540
 cgggggatgc agatccacat ccagcagatc gggccgggca tggtagagca gatccagacc
 600
 gtgtgcatcg agtgcaaggg ccagggtgag cgcaccaacc ccaaggaccg ctgcgagagc
 660
 tgcagcgggg ccaaggtgat ccgtgagaag aagattatcg aggtacatgt tgaaaaaggt
 720
 atgaaagatg ggcaaaagat actatttcat ggagaaggag atcaggagcc tgagctggag
 780
 cctggtgatg tcataattgt gcttgatcag aaggatcata gtgtctttca gagacgaggc
 840
 catgacttga tcatgaaaat gaaaattcag ctttctgaag ctctttgtgg cttcaagaag
 900
 acgataaaaa cattggacaa tcgaattctt gttattacat ccaaagcagg tgaggtgata
 960
 aagcacgggg acctgagatg cgtgcgcgat gaaggaatgc ccatctacaa agcaccctg
 1020
 gaaaaaggga ttctgatcat acagttttta gtaatctttc ctganaaaca ctggctttct
 1080
 ctgga
 1085

<210> 3496
 <211> 337
 <212> PRT
 <213> Homo sapiens

<400> 3496
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 Tyr His Pro Asp Lys Asn Pro Asp Glu Gly Glu Lys Phe Lys Leu Ile
 35 40 45
 Ser Gln Ala Tyr Glu Val Leu Ser Asp Pro Lys Lys Arg Asp Val Tyr
 50 55 60
 Asp Gln Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ser Gly Ser Pro
 65 70 75 80
 Ser Phe Ser Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly
 85 90 95
 Gly Arg Met Ala Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu
 100 105 110
 Ser Val Thr Leu Glu Asp Leu Tyr Asn Gly Val Thr Lys Lys Leu Ala
 115 120 125
 Leu Gln Lys Asn Val Ile Cys Glu Lys Cys Glu Gly Val Gly Gly Lys
 130 135 140
 Lys Gly Ser Val Glu Lys Cys Pro Leu Cys Lys Gly Arg Gly Met Gln
 145 150 155 160
 Ile His Ile Gln Gln Ile Gly Pro Gly Met Val Gln Gln Ile Gln Thr
 165 170 175
 Val Cys Ile Glu Cys Lys Gly Gln Gly Glu Arg Ile Asn Pro Lys Asp
 180 185 190
 Arg Cys Glu Ser Cys Ser Gly Ala Lys Val Ile Arg Glu Lys Lys Ile
 195 200 205
 Ile Glu Val His Val Glu Lys Gly Met Lys Asp Gly Gln Lys Ile Leu
 210 215 220
 Phe His Gly Glu Gly Asp Gln Glu Pro Glu Leu Glu Pro Gly Asp Val
 225 230 235 240
 Ile Ile Val Leu Asp Gln Lys Asp His Ser Val Phe Gln Arg Arg Gly
 245 250 255
 His Asp Leu Ile Met Lys Met Lys Ile Gln Leu Ser Glu Ala Leu Cys
 260 265 270
 Gly Phe Lys Lys Thr Ile Lys Thr Leu Asp Asn Arg Ile Leu Val Ile
 275 280 285
 Thr Ser Lys Ala Gly Glu Val Ile Lys His Gly Asp Leu Arg Cys Val
 290 295 300
 Arg Asp Glu Gly Met Pro Ile Tyr Lys Ala Pro Leu Glu Lys Gly Ile
 305 310 315 320
 Leu Ile Ile Gln Phe Leu Val Ile Phe Pro Xaa Lys His Trp Leu Ser
 325 330 335
 Leu

<210> 3497

<211> 1638

<212> DNA

<213> Homo sapiens

<400> 3497

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 120
 tttttagcat atccttctaa aaagttttcc tgagaatttt tagtttgcc tctcaagttt
 180

ccttattttta ccttttctta aattacctcc ctcttcctt agtgaaatga gccttccttc
240
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300
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420
tggtgctgtt gttgcagctg ctctgcctc actgtgagga atgaagaaag aggggaaaat
480
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540
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600
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720
aaggctagga tgatatatga agattacatt tctatactat caccaaaaga ggtcagctct
780
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840aacttcagat atatacttta atgcacagag attcttttcc aaggtttttg 900
aactctcaaa tttataagtc atttgttgaa agtactgctg gctcttcttc tgaatcttaa
960
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1020
catcagaaac tgagttcctg gagaactaca gtttagcatt cctcaggcta ctgtgaaaac
1080
acaaccgtta tggcttttgt ctccattttt atcaagggtt tccatgggta agtttgagga
1140
aaataccaca caaaacaatg aattgccaaa ttgtttgttt tattcaagac tcattctact
1200
tgcaagcaaa gtgtatttgt agtcttatga acagtctcct cgtgtatctc cagagactgc
1260
atgtgcaaag taaaatgctt catttgccac atagttgttg taatatttaa tccagtagca
1320
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1380
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1440
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1500
aatatttctg tacatgaaaa agagctattt atctctgttt gttggaaaat cctaattggg
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1620
ctaaaagcaa aaaacaaa
1638

<210> 3498

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3498

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 20 25 30
 Cys Cys Cys Cys Ser Cys Ser Cys Leu Thr Val Arg Asn Glu Glu Arg
 35 40 45
 Gly Glu Asn Ala Gly Arg Pro Thr His Thr Thr Lys Met Glu Ser Ile
 50 55 60
 Gln Val Leu Glu Glu Cys Gln Asn Pro Thr Ala Glu Glu Val Leu Ser
 65 70 75 80
 Trp Ser Gln Asn Phe Asp Lys Met Met Lys Ala Pro Ala Gly Arg Asn
 85 90 95
 Leu Phe Arg Glu Phe Leu Arg Thr Glu Tyr Ser Glu Glu Asn Leu Leu
 100 105 110
 Phe Trp Leu Ala Cys Glu Asp Leu Lys Lys Glu Gln Asn Lys Lys Val
 115 120 125
 Ile Glu Glu Lys Ala Arg Met Ile Tyr Glu Asp Tyr Ile Ser Ile Leu
 130 135 140
 Ser Pro Lys Glu Val Ser Leu Asp Ser Arg Val Arg Glu Val Ile Asn
 145 150 155 160
 Arg Asn Leu Leu Asp Pro Asn Pro His Met Tyr Glu Asp Ala Gln Leu
 165 170 175
 Gln Ile Tyr Thr Leu Met His Arg Asp Ser Phe Pro Arg Phe Leu Asn
 180 185 190
 Ser Gln Ile Tyr Lys Ser Phe Val Glu Ser Thr Ala Gly Ser Ser Ser
 195 200 205
 Glu Ser
 210

<210> 3499

<211> 732

<212> DNA

<213> Homo sapiens

<400> 3499

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 120
 tgccacgggc ggcgtcccag cctggcacag aggtattgtg attcccanaa tggccaagnc
 180
 aacagactcn aacctcagga tngttctatt ttcgcccaga agcaataatt ttttttccct
 240
 tctggaaagc cctttcaaga tagtgatgtt gatgtggggg cacggcggtc gccgggtaca
 300
 tggaggtacc ggggtcacag cagcgcaagc accgggaagc agggagcccc tggctcctgac
 360
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 420
 gtcctcagt ccctccac tctgtgtgt cccctcggac atggggcaca cgactcagga
 480
 ccaggccaga ggcaaaggca aggagcaggc agtacgccag caagagtccc tgtccacggg
 540

agcccatctt cctgccgggc cctccgtccc gccggccgct cctcccgcgc cgcccctaga
 600
 gcattctccc cccgccaagc ctctcccg ccanggtccg gggcgatgca cagactcggg
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 720
 gggggcggtg cg
 732

<210> 3500

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3500

Phe	Phe	Phe	Pro	Ser	Gly	Lys	Pro	Phe	Gln	Asp	Ser	Asp	Val	Asp	Val
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Gly	Ala	Arg	Arg	Ser	Pro	Gly	Thr	Trp	Arg	Tyr	Arg	Gly	His	Ser	Ser
		20					25					30			
Ala	Ser	Thr	Gly	Lys	Gln	Gly	Ala	Pro	Gly	Pro	Asp	Trp	Ala	Cys	Ile
	35					40					45				
Phe	His	Val	Val	Leu	Gln	Pro	Ser	Arg	His	Gly	Pro	Glu	Ala	Thr	Ala
	50				55					60					
Ala	Pro	Gln	Ser	Pro	Pro	Thr	Pro	Ala	Val	Pro	Pro	Gly	His	Gly	Ala
65				70				75						80	
His	Asp	Ser	Gly	Pro	Gly	Gln	Arg	Gln	Arg	Gln	Gly	Ala	Gly	Ser	Thr
		85				90							95		
Pro	Ala	Arg	Val	Pro	Val	His	Gly	Ser	Pro	Ser	Ser	Cys	Arg	Ala	Leu
		100				105						110			
Arg	Pro	Ala	Gly	Arg	Ser	Ser	Arg	Ala	Ala	Pro	Arg	Ala	Ser	Pro	Ala
	115					120					125				
Gly	Gln	Ala	Ser	Ser	Arg	Pro	Xaa	Ser	Gly	Ala	Met	His	Arg	Leu	Gly
	130				135					140					
Glu	Gly	Asn	Arg	Ala	Gly	Glu	Lys	Val	Phe	Arg	Arg	Thr	Ala	Val	Gln
145				150				155						160	
Lys	Arg	Arg	Val	Gly	Gly	Gly	Thr								
				165											

<210> 3501

<211> 691

<212> DNA

<213> Homo sapiens

<400> 3501

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 120
 cccctatag agaagatgga tgcattcttg tccatgcttg ctaattgcga gaagctttta
 180
 ctgtctacaa actgcattga aaaaattgcc aacctgaatg gcttaaaaaa cttgaggata
 240
 ttatcttttag gaagaaacaa cataaagaac ttaaattggac tggaggcagt agggggacaca
 300

ttagaagaac tgtggatctc ctacaatttt attgagaagt tgaaagggat ccacataatg
 360
 aagaaattga agattctcta catgtctaata aacctggtaa aagactgggc tgagtttgtg
 420
 aagctggcag aactgccatg cctcgaagac ctggtgtttg taggcaatcc cttggaagag
 480
 aaacattctg ctgagaataa ctggattgaa gaagcaacca agagagtgcc caaactgaaa
 540
 aagctggatg gtactccagt aattaaaggg gatgaggaag aagacaacta atgccacgct
 600
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 660
 gtctatttta aaaaaaaaaa aaaaaaaaaa a
 691

<210> 3502

<211> 196

<212> PRT

<213> Homo sapiens

<400> 3502

Xaa	Val	Ala	Thr	Ala	Gly	Met	Ala	Lys	Ala	Thr	Thr	Ile	Lys	Glu	Ala
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Leu	Ala	Arg	Trp	Glu	Glu	Lys	Thr	Gly	Gln	Arg	Pro	Ser	Glu	Ala	Lys
			20					25					30		
Glu	Ile	Lys	Leu	Tyr	Ala	Gln	Ile	Pro	Pro	Ile	Glu	Lys	Met	Asp	Ala
		35					40					45			
Ser	Leu	Ser	Met	Leu	Ala	Asn	Cys	Glu	Lys	Leu	Ser	Leu	Ser	Thr	Asn
	50					55				60					
Cys	Ile	Glu	Lys	Ile	Ala	Asn	Leu	Asn	Gly	Leu	Lys	Asn	Leu	Arg	Ile
65				70					75					80	
Leu	Ser	Leu	Gly	Arg	Asn	Asn	Ile	Lys	Asn	Leu	Asn	Gly	Leu	Glu	Ala
			85					90					95		
Val	Gly	Asp	Thr	Leu	Glu	Glu	Leu	Trp	Ile	Ser	Tyr	Asn	Phe	Ile	Glu
			100					105					110		
Lys	Leu	Lys	Gly	Ile	His	Ile	Met	Lys	Lys	Leu	Lys	Ile	Leu	Tyr	Met
		115				120						125			
Ser	Asn	Asn	Leu	Val	Lys	Asp	Trp	Ala	Glu	Phe	Val	Lys	Leu	Ala	Glu
	130					135				140					
Leu	Pro	Cys	Leu	Glu	Asp	Leu	Val	Phe	Val	Gly	Asn	Pro	Leu	Glu	Glu
145				150					155					160	
Lys	His	Ser	Ala	Glu	Asn	Asn	Trp	Ile	Glu	Glu	Ala	Thr	Lys	Arg	Val
			165					170					175		
Pro	Lys	Leu	Lys	Lys	Leu	Asp	Gly	Thr	Pro	Val	Ile	Lys	Gly	Asp	Glu
		180					185						190		
Glu	Glu	Asp	Asn												
		195													

<210> 3503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 3503

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 120
 aatgcccaaga gattagcgga gaagctccga gccagaaaac gggaacaaga cacaaagaag
 180
 gagccggtgt ccacaaacgc tgttcagcgg agagtgaag aaatagtgcg gttcacacgg
 240
 cagctgcagc gaggccaccc caacgtgctt gctaaggcac tgacccgagg aattctccac
 300
 caggacaaga accttgtggt catcaataag ccctacggtc tccctgtgca tgggtggccct
 360
 ggggtccagc tctgcatcac tgatgtacta cctatcctgg caaagatgct tcatggccac
 420
 aaggcagagc ccttgcattt gtgccaccgg ctggacaagg aaaccacagg tgtaatgggtg
 480
 ttggcttggg acaaggacat ggcacatcaa gtccaagagt tgtttagaac ccgtcaggtg
 540
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 600
 atccccattg tggagaagga ggggcaaggc cagcagcaac accccagaat gacattgtcc
 660
 ccgagctccc gcatggacga tgggaaaatg gtgaaagtgc ggcgcagccg gaatgcgcaa
 720
 gttgctgtaa ctcagtacca ggtgctcagc agcactctct cctccgccct cgtggagctc
 780
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 840
 ccaatccttg gtgatca
 857

<210> 3504

<211> 285

<212> PRT

<213> Homo sapiens

<400> 3504

Ala	Ala	Pro	Arg	Trp	Ser	Ala	Ser	Gly	Pro	Trp	Ile	Arg	Gly	Asn	Gly
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Gln	Gly	Cys	Gly	Ser	Leu	Phe	Thr	Leu	Val	Ser	Lys	Pro	Phe	Cys	Ala
			20					25					30		
Ala	Ala	Ala	Ala	Ser	Thr	Ala	Ile	Asn	Ala	Gln	Arg	Leu	Ala	Glu	Lys
			35				40					45			
Leu	Arg	Ala	Gln	Lys	Arg	Glu	Gln	Asp	Thr	Lys	Lys	Glu	Pro	Val	Ser
	50					55				60					
Thr	Asn	Ala	Val	Gln	Arg	Arg	Val	Gln	Glu	Ile	Val	Arg	Phe	Thr	Arg
65				70					75					80	
Gln	Leu	Gln	Arg	Val	His	Pro	Asn	Val	Leu	Ala	Lys	Ala	Leu	Thr	Arg
			85					90					95		
Gly	Ile	Leu	His	Gln	Asp	Lys	Asn	Leu	Val	Val	Ile	Asn	Lys	Pro	Tyr
			100					105					110		
Gly	Leu	Pro	Val	His	Gly	Gly	Pro	Gly	Val	Gln	Leu	Cys	Ile	Thr	Asp
		115					120					125			
Val	Leu	Pro	Ile	Leu	Ala	Lys	Met	Leu	His	Gly	His	Lys	Ala	Glu	Pro

130	135	140
Leu His Leu Cys His Arg Leu Asp Lys Glu Thr Thr Gly Val Met Val		
145	150	155
Leu Ala Trp Asp Lys Asp Met Ala His Gln Val Gln Glu Leu Phe Arg		160
	165	170
Thr Arg Gln Val Val Lys Lys Tyr Trp Ala Ile Thr Val His Val Pro		175
	180	185
Met Pro Ser Ala Gly Val Val Asp Ile Pro Ile Val Glu Lys Glu Gly		190
	195	200
Gln Gly Gln Gln Gln His Pro Arg Met Thr Leu Ser Pro Ser Ser Arg		205
	210	215
Met Asp Asp Gly Lys Met Val Lys Val Arg Arg Ser Arg Asn Ala Gln		220
225	230	235
Val Ala Val Thr Gln Tyr Gln Val Leu Ser Ser Thr Leu Ser Ser Ala		240
	245	250
Leu Val Glu Leu Gln Pro Ile Thr Gly Ile Lys His Gln Leu Arg Val		255
	260	265
His Leu Ser Phe Gly Leu Asp Cys Pro Ile Leu Gly Asp		270
	275	280
		285

<210> 3505

<211> 1612

<212> DNA

<213> Homo sapiens

<400> 3505

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 120
 cttgtcgcat ccctgggctc tgcggagaag gaacccgagc agcccccggc cctgtggagg
 180
 aagggtgtgg acttcctgct gaaggccatc atgcgcacca tgtggttcgc cggcggttc
 240
 caccgggtgg ccgtgaagg ggcgcaggcg ctgcccaccg aggcgggcat cctcacgctc
 300
 gcgcctcact cgctctactt cgacgccatc cctgtgacca tgacgatgct ctccatcggt
 360
 atgaagacag agagcagaga catcccgatc tggggaactc tgatccagta tatacggcct
 420
 gtgttcgtgt cccggtcaga ccaggattct cgcaggaaaa cagtagaaga aatcaagaga
 480
 cgggcgcagt ccaacggaaa gtggccacag ataatgattt ttccagaagg aacttgatca
 540
 aacaggacct gcctaattac cttcaaacct ggtgcattca tccctggagc gcccgccac
 600
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 660
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 720
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 780
 aacgtgcggc gagtcattgc cgaggccttg ggtgtctccg tgactgacta cacgttcgag
 840

gactgccagc tggccctggc ggaaggacag ctccgtctcc ccgctgacac ttgcctttta
 900
 gaatttgcca ggctcgtgcg gggcctcggg ctaaaaccag aaaagcttga aaaagatctg
 960
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 gccgcctccc tggaagtccc cgtttctgac ttgctggaag acatgttttc actgttcgac
 1080
 gagagcggca gcggcgaggt ggacctgcga gagtgtgtgg ttgccctgtc tgcgtctgc
 1140
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 1200
 gacggcagcg tcggcgaagg tgacctgtcc tgcacctca agacggccct gggggtggca
 1260
 gagctcactg tgaccgacct attccgagcc attgaccaag aggagaaggg gaagatcaca
 1320
 ttcgctgact tccacaggtt tgcagaaatg taccctgcct tcgcagagga atacctgtac
 1380
 ccggatcaga cacatttcga aagctgtgca gagacctcac ctgcgccaat cccaaacggc
 1440
 ttctgtgccg atttcagccc ggaaaactca gacgctgggc ggaagcctgt tcgcaagaag
 1500
 ctggattagg acccaggggt gcggagagac gcggccctc ccgctggac atcaccgcca
 1560
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 1612

<210> 3506

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3506

Val	His	Glu	Leu	His	Leu	Ser	Ala	Leu	Gln	Lys	Ala	Gln	Val	Ala	Leu
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Met	Thr	Leu	Thr	Leu	Phe	Pro	Val	Arg	Leu	Leu	Val	Ala	Ala	Ala	Met
				20				25					30		
Met	Leu	Leu	Ala	Trp	Pro	Leu	Ala	Leu	Val	Ala	Ser	Leu	Gly	Ser	Ala
			35				40					45			
Glu	Lys	Glu	Pro	Glu	Gln	Pro	Pro	Ala	Leu	Trp	Arg	Lys	Val	Val	Asp
		50				55					60				
Phe	Leu	Leu	Lys	Ala	Ile	Met	Arg	Thr	Met	Trp	Phe	Ala	Gly	Gly	Phe
65					70					75				80	
His	Arg	Val	Ala	Val	Lys	Gly	Arg	Gln	Ala	Leu	Pro	Thr	Glu	Ala	Ala
				85					90					95	
Ile	Leu	Thr	Leu	Ala	Pro	His	Ser	Ser	Tyr	Phe	Asp	Ala	Ile	Pro	Val
			100					105					110		
Thr	Met	Thr	Met	Ser	Ser	Ile	Val	Met	Lys	Thr	Glu	Ser	Arg	Asp	Ile
		115					120				125				
Pro	Ile	Trp	Gly	Thr	Leu	Ile	Gln	Tyr	Ile	Arg	Pro	Val	Phe	Val	Ser
		130				135					140				
Arg	Ser	Asp	Gln	Asp	Ser	Arg	Arg	Lys	Thr	Val	Glu	Glu	Ile	Lys	Arg
145					150					155				160	
Arg	Ala	Gln	Ser	Asn	Gly	Lys	Trp	Pro	Gln	Ile	Met	Ile	Phe	Pro	Glu

165 170 175
 Gly Thr Cys Thr Asn Arg Thr Cys Leu Ile Thr Phe Lys Pro Gly Ala
 180 185 190
 Phe Ile Pro Gly Ala Pro Val His Pro Gly Val Leu Arg Tyr Pro Asn
 195 200 205
 Lys Leu Asp Thr Ile Thr Trp Thr Trp Gln Gly Pro Gly Ala Leu Glu
 210 215 220
 Ile Leu Trp Leu Thr Leu Cys Gln Phe His Asn Gln Val Glu Ile Glu
 225 230 235 240
 Phe Leu Pro Val Tyr Ser Pro Ser Glu Glu Glu Lys Arg Asn Pro Ala
 245 250 255
 Leu Tyr Ala Ser Asn Val Arg Arg Val Met Ala Glu Ala Leu Gly Val
 260 265 270
 Ser Val Thr Asp Tyr Thr Phe Glu Asp Cys Gln Leu Ala Leu Ala Glu
 275 280 285
 Gly Gln Leu Arg Leu Pro Ala Asp Thr Cys Leu Leu Glu Phe Ala Arg
 290 295 300
 Leu Val Arg Gly Leu Gly Leu Lys Pro Glu Lys Leu Glu Lys Asp Leu
 305 310 315 320
 Asp Arg Tyr Ser Glu Arg Ala Arg Met Lys Gly Gly Glu Lys Ile Gly
 325 330 335
 Ile Ala Glu Phe Ala Ala Ser Leu Glu Val Pro Val Ser Asp Leu Leu
 340 345 350
 Glu Asp Met Phe Ser Leu Phe Asp Glu Ser Gly Ser Gly Glu Val Asp
 355 360 365
 Leu Arg Glu Cys Val Val Ala Leu Ser Val Val Cys Trp Pro Ala Arg
 370 375 380
 Thr Leu Asp Thr Ile Gln Leu Ala Phe Lys Met Tyr Gly Ala Gln Glu
 385 390 395 400
 Asp Gly Ser Val Gly Glu Gly Asp Leu Ser Cys Ile Leu Lys Thr Ala
 405 410 415
 Leu Gly Val Ala Glu Leu Thr Val Thr Asp Leu Phe Arg Ala Ile Asp
 420 425 430
 Gln Glu Glu Lys Gly Lys Ile Thr Phe Ala Asp Phe His Arg Phe Ala
 435 440 445
 Glu Met Tyr Pro Ala Phe Ala Glu Glu Tyr Leu Tyr Pro Asp Gln Thr
 450 455 460
 His Phe Glu Ser Cys Ala Glu Thr Ser Pro Ala Pro Ile Pro Asn Gly
 465 470 475 480
 Phe Cys Ala Asp Phe Ser Pro Glu Asn Ser Asp Ala Gly Arg Lys Pro
 485 490 495
 Val Arg Lys Lys Leu Asp
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<210> 3507

<211> 885

<212> DNA

<213> Homo sapiens

<400> 3507

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 120

cgagcccgcg ccccgccatc cgtgctcaag tcccactcgc tgtagtcatt gttgatgctg
 180
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 240
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 300
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 360
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 540
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 720
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 780
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 885

<210> 3508

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3508

Leu	Arg	Thr	Leu	Leu	Asn	Leu	Leu	Phe	Leu	Pro	Asp	Gly	Leu	Cys	Gln
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Arg	Arg	Leu	Leu	Cys	Glu	Val	Ala	Ile	Ala	Val	Tyr	Thr	Phe	Gly	Thr
		20					25					30			
Cys	Ile	Ala	Phe	Leu	Ile	Ile	Ile	Gly	Asp	Gln	Gln	Asp	Lys	Ile	Ile
	35					40					45				
Ala	Val	Met	Ala	Lys	Glu	Pro	Glu	Gly	Ala	Ser	Gly	Pro	Trp	Tyr	Thr
	50				55					60					
Asp	Arg	Lys	Phe	Thr	Ile	Ser	Leu	Thr	Ala	Phe	Leu	Phe	Ile	Leu	Pro
65				70				75				80			
Leu	Ser	Ile	Pro	Arg	Glu	Ile	Gly	Phe	Gln	Lys	Tyr	Ala	Ser	Phe	Leu
		85					90					95			
Ser	Val	Val	Gly	Thr	Trp	Tyr	Val	Thr	Ala	Ile	Val	Ile	Ile	Lys	Tyr
	100						105					110			
Ile	Trp	Pro	Asp	Lys	Glu	Met	Thr	Pro	Gly	Asn	Ile	Leu	Thr	Arg	Pro
	115					120						125			
Ala	Ser	Trp	Met	Ala	Val	Phe	Asn	Ala	Met	Pro	Thr	Ile	Cys	Phe	Gly
	130				135					140					
Phe	Gln	Cys	His	Val	Ser	Ser	Val	Pro	Val	Phe	Asn	Ser	Met	Gln	Gln
145				150				155				160			
Pro	Glu	Val	Lys	Thr	Trp	Gly	Gly	Val	Val	Thr	Ala	Ala	Met	Val	Ile

165 170 175
 Ala Leu Ala Val Tyr Met Gly Thr Gly Ile Cys Gly Phe Leu Thr Phe
 180 185 190
 Gly Ala Ala Val Asp Pro Asp
 195

<210> 3509
 <211> 331
 <212> DNA
 <213> Homo sapiens

<400> 3509
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 120
 gccctctgcg acggctcccc gaccgaggga gagctcccca cgcacgagca ggtcttcctg
 180
 agccccccac ctctttaaag cccccgaggg cctgggttgc cccagaagtt ggaggagcgc
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 300
 tggcagggtg tccccaccca ccctcacgcg t
 331

<210> 3510
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3510
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 20 25 30
 Leu Ala His Tyr His Val Ala Met Ala Leu Cys Asp Gly Ser Pro Thr
 35 40 45
 Glu Gly Glu Leu Pro Thr His Glu Gln Val Phe Leu Ser Pro Pro Pro
 50 55 60
 Pro Leu Ser Pro Arg Gly Pro Gly Leu Pro Gln Lys Leu Glu Glu Arg
 65 70 75 80
 Arg Gln Leu Gly Lys Ala Pro Met Gly Gly Val Pro Trp Gly Ser Asp
 85 90 95
 Gly His Gln Arg Trp Gln Gly Val Pro His His Pro His Ala
 100 105 110

<210> 3511
 <211> 3319
 <212> DNA
 <213> Homo sapiens

<400> 3511
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120
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180
acaaatgagc attctcagac ttgtgattgg ggtaatctcc ttcaggacat tattctccaa
240
gtattttaa atttgcctct tcttgaccgg gctcatgctt cacaagtttg ccgcaactgg
300
aaccaggat ttcacatgcc tgacttgtgg agatgttttg aatttgaact gaatcagcca
360
gctacatctt atttgaaagc taccatcca gagctgatca aacagattat taaaagacat
420
tcaaaccatc tacaatatgt cagcttcaag gtggacagca gcaaggaatc agctgaagca
480
gcttgtgata tactatcgca acttgtgaat tgctctttaa aaacacttgg acttatttca
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600
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660
ccatctctca aagtactagt ggccaacaat agtgatacac tcaagctgtt gaaaatgagc
720
agctgtcctc atgtctctcc agcaggatc ctttgtgtgg ctgatcagtg tcacggctta
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1140
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1260
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1320
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Leu	Ser	Gln	Leu	Lys	Gly	Asn	Leu	Glu	Glu	Glu	Asn	Arg	His	Leu	Leu
		20						25					30		
Asp	Gln	Ile	Gln	Thr	Leu	Met	Leu	Gln	Asn	Arg	Thr	Leu	Leu	Glu	Gln
		35					40					45			
Asn	Met	Glu	Ser	Lys	Asp	Leu	Phe	His	Val	Glu	Gln	Arg	Gln	Tyr	Ile
	50					55					60				
Asp	Lys	Leu	Asn	Glu	Leu	Arg	Arg	Gln	Lys	Glu	Lys	Leu	Glu	Glu	Lys
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Ile	Met	Asp	Gln	Tyr	Lys	Phe	Tyr	Asp	Pro	Ser	Pro	Pro	Arg	Arg	Arg
			85						90				95		
Gly	Asn	Trp	Ile	Thr	Leu	Lys	Met	Arg	Lys	Leu	Ile	Lys	Ser	Lys	Lys
		100						105					110		
Asp	Ile	Asn	Arg	Glu	Arg	Gln	Lys	Ser	Leu	Thr	Leu	Thr	Pro	Thr	Arg
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Ser	Asp	Ser	Ser	Glu	Gly	Phe	Leu	Gln	Leu	Pro	His	Gln	Asp	Ser	Gln
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Asp	Ser	Ser	Ser	Val	Gly	Ser	Asn	Ser	Leu	Glu	Asp	Gly	Gln	Thr	Leu
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Gly	Thr	Lys	Lys	Ser	Ser	Thr	Met	Asn	Asp	Leu	Val	Gln	Ser	Met	Val
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Leu	Ala	Gly	Gln	Trp	Thr	Gly	Ser	Thr	Glu	Asn	Leu	Glu	Val	Pro	Asp
		180						185					190		
Asp	Ile	Ser	Thr	Gly	Lys	Arg	Arg	Lys	Glu	Leu	Gly	Ala	Met	Ala	Phe
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Ser	Thr	Thr	Ala	Ile	Asn	Phe	Ser	Thr	Val	Asn	Ser	Ser	Ala	Gly	Phe
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His	Ala	Ser	Arg	Pro	Ala	Ser	Leu	Asp	Ser	Gly	Arg	Thr	Ser	Thr	Ser
		260						265					270		
Asn	Ser	Asn	Asn	Asn	Ala	Ser	Leu	His	Glu	Val	Lys	Ala	Gly	Ala	Val

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Leu His Asp His Glu Ala Trp Ser Ser Ser Gly Ser Ser Pro Ile Gln		
305	310	315
Tyr Leu Lys Arg Gln Thr Arg Ser Ser Pro Val Leu Gln His Lys Ile		
325	330	335
Ser Glu Thr Leu Glu Ser Arg His His Lys Ile Lys Thr Gly Ser Pro		
340	345	350
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355	360	365
Leu Thr Ser Val Gln Ile Lys Ser Ser Ser Gln Glu Asn Leu Leu Asp		
370	375	380
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385	390	395
Lys Pro Val Ser Cys Gly Leu Ala Arg Ser Val Ser Gly Lys Thr Pro		
405	410	415
Gly Asp Phe Tyr Asp Arg Arg Thr Thr Lys Pro Glu Phe Leu Arg Pro		
420	425	430
Gly Pro Arg Lys Thr Glu Asp Thr Tyr Phe Ile Ser Ser Ala Gly Lys		
435	440	445
Pro Thr Pro Gly Thr Gln Gly Lys Ile Lys Leu Val Lys Glu Ser Ser		
450	455	460
Leu Ser Arg Gln Ser Lys Asp Ser Asn Pro Tyr Ala Thr Leu Pro Arg		
465	470	475
Ala Ser Ser Val Ile Ser Thr Ala Glu Gly Thr Thr Arg Arg Thr Ser		
485	490	495
Ile His Asp Phe Leu Thr Lys Asp Ser Arg Leu Pro Ile Ser Val Asp		
500	505	510
Ser Pro Pro Ala Ala Ala Asp Ser Asn Thr Thr Ala Ala Ser Asn Val		
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<210> 3517

<211> 342

<212> DNA

<213> Homo sapiens

<400> 3517

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120

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240

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342

<210> 3518
 <211> 99
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gln Arg Met Pro Asp Arg Pro Thr Ser Arg Pro Leu Leu Val Arg Ala
 50 55 60
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<210> 3519
 <211> 2207
 <212> DNA
 <213> Homo sapiens

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<210> 3520

<211> 303

<212> PRT

<213> Homo sapiens

<400> 3520

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 35 40 45
 Arg Glu Glu Leu Ala Arg Ile Gly Leu Val Pro Pro Pro Glu Glu Phe
 50 55 60
 Ala Asn Gly Val Leu Leu Ala Thr Pro Leu Ala Gly Pro Gly Pro Ser
 65 70 75 80
 Pro Thr Thr Val Pro Ser Pro Ala Ser Gly Lys Pro Ser Ser Glu Pro
 85 90 95
 Pro Pro Ala Pro Glu Ser Ala Ala Asp Ser Gly Val Glu Glu Ala Asp
 100 105 110
 Thr Arg Ser Ser Ser Asp Pro His Leu Glu Thr Thr Ser Thr Ile Ser
 115 120 125
 Thr Val Ser Ser Met Ser Thr Leu Ser Ser Glu Ser Gly Glu Leu Thr
 130 135 140
 Asp Thr His Thr Ser Phe Ala Asp Gly His Thr Phe Leu Leu Glu Lys
 145 150 155 160
 Pro Pro Val Pro Pro Lys Pro Lys Leu Lys Ser Pro Leu Gly Lys Gly
 165 170 175
 Pro Val Thr Phe Arg Asp Pro Leu Leu Lys Gln Ser Ser Asp Ser Glu
 180 185 190
 Leu Met Ala Gln Gln His His Ala Ser Ala Gly Leu Ala Ser Ala
 195 200 205
 Ala Gly Pro Ala Arg Pro Arg Tyr Leu Phe Gln Arg Arg Ser Lys Leu
 210 215 220
 Trp Gly Asp Pro Val Glu Ser Arg Gly Leu Pro Gly Pro Glu Asp Asp
 225 230 235 240
 Lys Pro Thr Val Ile Ser Glu Leu Ser Ser Arg Leu Gln Gln Leu Asn
 245 250 255
 Lys Asp Thr Arg Ser Leu Gly Glu Glu Pro Val Gly Gly Leu Gly Ser
 260 265 270
 Leu Leu Asp Pro Ala Lys Lys Ser Pro Ile Ala Ala Ala Arg Ser Pro
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 Leu Ser Ser Leu Gly Leu Gly Gly Trp Tyr Val Asp Ala Thr Ser
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<210> 3521

<211> 638

<212> DNA

<213> Homo sapiens

<400> 3521

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<210> 3522

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3522

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		20						25				30			
Gln	His	Ala	Asp	Gln	Gly	Pro	Pro	Gly	Pro	His	Leu	Asp	Leu	His	Gln
		35					40				45				
Asp	Leu	Gln	Ala	Glu	Pro	Leu	Arg	Pro	Ala	Gly	Leu	Gly	Gly	Gly	Leu
	50					55				60					
Leu	Arg	Cys	Gly	Leu	Pro	Ser	Glu	Gln	Arg	Ala	Ala	Gly	Glu	Ala	Arg
65					70				75					80	
Gly	Leu	His	Leu	Leu	Gln	Asp	Pro	Thr	Pro	Gly	Arg	Leu	Cys	Gln	Ala
			85					90					95		
Pro	Ala	Gly	Pro	Pro	Gly	Gly	Gly	His	Gly	Pro	Ala	Gly	Arg	Gly	Gln
		100					105					110			
Pro	Ser	Arg	His	Arg	Pro	Gly	Glu	Pro	Gln	Gly	Gly	Arg	Gly	Gly	Xaa
		115				120					125				
Pro	Asp	Pro	Ser	Thr	Pro	Ser	Val	Arg	Gly	Ser	Gln	Arg	Thr	Ala	Ser
	130					135					140				
Pro	Gly	Arg	Ala	Ser	Pro	Gly	Gly	Cys	Pro	Glu	Ala	Thr	Gly	Trp	Cys
145					150				155					160	
Cys	Arg	His	Thr	Arg	Ser	Ala	Pro	Thr	Pro	Leu	Leu	Pro	Pro	Cys	Pro
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<210> 3523

<211> 2614

<212> DNA

<213> Homo sapiens

<400> 3523

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240
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300
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<210> 3524

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3524

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			20					25					30		
Glu	Arg	Trp	Leu	Val	Ile	Asp	Arg	Lys	Val	Tyr	Asn	Ile	Ser	Asp	Phe
			35				40					45			
Ser	Arg	Arg	His	Pro	Gly	Gly	Ser	Arg	Val	Ile	Ser	His	Tyr	Ala	Gly
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Gln	Asp	Ala	Thr	Asp	Pro	Phe	Val	Ala	Phe	His	Ile	Asn	Lys	Gly	Leu
65					70				75					80	
Val	Lys	Lys	Tyr	Met	Asn	Ser	Leu	Leu	Ile	Gly	Glu	Leu	Ser	Pro	Glu
				85				90					95		
Gln	Pro	Ser	Phe	Glu	Pro	Thr	Lys	Asn	Lys	Glu	Leu	Thr	Asp	Glu	Phe
			100				105					110			
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      165              170              175
Leu Gln His Asp Phe Gly His Leu Ser Val Phe Ser Thr Ser Lys Trp
      180              185              190
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Ala Ser Trp Trp Asn His Met His Phe Gln His His Ala Lys Pro Asn
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Cys Phe Arg Lys Asp Pro Asp Ile Asn Met His Pro Phe Phe Phe Ala
225              230              235              240
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      260              265              270
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Gln Arg Lys Lys Trp Val Asp Leu Val Trp Met Ile Thr Phe Tyr Val
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      355              360              365
Ser Ala Phe Asn Asp Trp Phe Ser Gly His Leu Asn Phe Gln Ile Glu
      370              375              380
His His Leu Phe Pro Thr Met Pro Arg His Asn Tyr His Lys Val Ala
385              390              395              400
Pro Leu Val Gln Ser Leu Cys Ala Lys His Gly Ile Glu Tyr Gln Ser
      405              410              415
Lys Pro Leu Leu Ser Ala Phe Ala Asp Ile Ile His Ser Leu Lys Glu
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<210> 3525

<211> 1116

<212> DNA

<213> Homo sapiens

<400> 3525

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180

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<211> 304

<212> PRT

<213> Homo sapiens

<400> 3526

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<212> DNA

<213> Homo sapiens

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<211> 281

<212> PRT

<213> Homo sapiens

<400> 3528

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Lys His Gly Ala Ile Pro Gly Gly Leu Ser Ile Gly Pro Pro Gly Lys
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Ser Ser Ile Asp Asp Ser Tyr Gly Arg Tyr Asp Leu Ile Gln Asn Ser
65 70 75 80
Glu Ser Pro Ala Ser Pro Pro Val Ala Val Pro His Ser Trp Ser Arg
85 90 95
Ala Lys Ser Asp Ser Asp Lys Ile Ser Asn Gly Ser Ser Ile Asn Trp
100 105 110
Pro Pro Glu Phe His Pro Gly Val Pro Trp Lys Gly Leu Gln Asn Ile
115 120 125
Asp Pro Glu Asn Asp Pro Asp Val Thr Pro Gly Ser Val Pro Thr Gly
130 135 140
Pro Thr Ile Asn Thr Thr Ile Gln Asp Val Asn Arg Tyr Leu Leu Lys
145 150 155 160
Ser Gly Gly Ser Ser Pro Pro Ser Ser Gln Asn Ala Thr Leu Pro Ser
165 170 175
Ser Ser Ala Trp Pro Leu Ser Ala Ser Gly Tyr Ser Ser Ser Phe Ser
180 185 190
Ser Ile Ala Ser Ala Pro Ser Val Ala Gly Lys Leu Ser Asp Ile Lys
195 200 205
Ser Thr Trp Ser Ser Gly Pro Thr Ser His Thr Gln Ala Ser Leu Ser
210 215 220
His Glu Leu Trp Lys Val Pro Arg Asn Ser Thr Ala Pro Thr Arg Pro
225 230 235 240
Pro Pro Gly Leu Thr Asn Pro Lys Pro Ser Ser Thr Trp Gly Ala Ser
245 250 255
Pro Leu Gly Trp Thr Ser Ser Tyr Ser Ser Gly Ser Ala Trp Ser Thr
260 265 270
Asp Thr Ser Gly Arg Thr Ser Ser Trp Leu Val Leu Arg Asn Leu Thr
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Pro Gln Val Gln Tyr Gly Ala Pro Ala Ser Leu Ser Met Ile Gln Gly
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Gly Phe Pro Leu Gly Pro Gln Cys Arg
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<210> 3535
<211> 723
<212> DNA
<213> Homo sapiens

<400> 3535

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<210> 3536

<211> 163

<212> PRT

<213> Homo sapiens

<400> 3536

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 Arg Val Ser Leu Leu Leu Leu Tyr Tyr Ile Ile His Gln Glu Glu Ile
 35 40 45
 Cys Ser Ser Lys Leu Asn Met Ser Asn Lys Glu Tyr Lys Phe Tyr Leu
 50 55 60
 His Ser Leu Leu Ser Leu Arg Gln Asp Glu Asp Ser Ser Phe Leu Ser
 65 70 75 80
 Gln Asn Glu Thr Glu Asp Ile Leu Ala Phe Thr Arg Gln Tyr Phe Asp
 85 90 95
 Thr Ser Gln Ser Gln Cys Met Glu Thr Lys Thr Leu Gln Lys Lys Ser
 100 105 110
 Gly Ile Val Ser Ser Glu Gly Ala Asn Glu Ser Thr Leu Pro Gln Leu
 115 120 125
 Ala Ala Met Ile Ile Thr Leu Ser Leu Gln Gly Val Cys Leu Gly Gln
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Leu Asn Arg

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155

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<210> 3537
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<212> DNA
<213> Homo sapiens

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<210> 3538
<211> 154
<212> PRT
<213> Homo sapiens

<400> 3538
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 Leu Lys Asp Pro Ser Ser Asn Pro Ala Gly Pro Arg Ala Thr Ala Gly
 35 40 45
 Gln Gly Val Ala Pro Gly Phe Arg His Ala Thr Thr Thr Arg Ala Arg
 50 55 60
 Ala Thr His Ala Ser Cys Ala His Leu Thr His Thr Pro Leu Pro Gly
 65 70 75 80
 His Ala Asp Thr Pro Gln Pro His Thr Ser His Ala Val His Leu Arg
 85 90 95
 Leu Leu Thr Ser His Ala Gln Cys Trp Cys Thr Phe Ala Ser His Met

100 105 110
 Leu Pro Ser Pro Pro Thr Gln Gly His Pro Thr Ala Pro Pro Cys Pro
 115 120 125
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 Met Gln Trp Glu Ser Gln Ala Val Gln Trp
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 <212> DNA
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 720
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<210> 3540
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 3540
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 Thr Leu Gly Ser Ser Arg Ala Lys Leu Gly Asn Phe Pro Trp Gln Ala

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      35      40      45
Phe Thr Ser Ile His Gly Arg Gly Gly Gly Ala Leu Leu Gly Asp Arg
      50      55      60
Trp Ile Leu Thr Ala Ala His Thr Val Tyr Pro Lys Asp Ser Val Ser
      65      70      75      80
Leu Arg Lys Asn Gln Ser Val Asn Val Phe Leu Gly His Thr Ala Ile
      85      90      95
Asp Glu Met Leu Lys Leu Gly Asn His Pro Val His Arg Val Val Val
      100      105      110
His Pro Asp Tyr Arg Gln Asn Glu Ser His Asn Phe Ser Gly Asp Ile
      115      120      125
Ala Leu Leu Glu Leu Gln His Ser Ile Pro Leu Gly Pro Asn Val Leu
      130      135      140
Pro Val Cys Leu Pro Asp Asn Glu Thr Leu Tyr Arg Ser Gly Leu Leu
      145      150      155      160
Gly Tyr Val Ser Gly Phe Gly Met Glu Met Gly Trp Leu Thr Thr Glu
      165      170      175
Leu Lys Tyr Ser
      180

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<210> 3541

<211> 722

<212> DNA

<213> Homo sapiens

<400> 3541

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180
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240
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300
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<210> 3542

<211> 153

<212> PRT

<213> Homo sapiens

<400> 3542

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Gln Ala Gly Asp Phe Glu Ala Ala Glu Arg His Cys Met Gln Leu Trp
 35           40           45
Arg Gln Glu Pro Asp Asn Thr Gly Val Leu Leu Leu Leu Ser Ser Ile
 50           55           60
His Phe Gln Cys Arg Arg Leu Asp Arg Ser Ala His Phe Ser Thr Leu
 65           70           75           80
Ala Ile Lys Gln Asn Pro Leu Leu Ala Glu Ala Tyr Ser Asn Leu Gly
 85           90           95
Asn Val Tyr Lys Glu Arg Gly Gln Leu Gln Glu Ala Ile Glu His Tyr
100          105          110
Arg His Ala Leu Arg Leu Lys Pro Asp Phe Ile Asp Gly Tyr Ile Asn
115          120          125
Ala Ala Ala Ala Leu Val Ala Ala Gly Asp Met Glu Gly Ala Val Gln
130          135          140
Ala Tyr Val Ser Ala Leu Gln Pro Gly
145          150

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<210> 3543

<211> 1206

<212> DNA

<213> Homo sapiens

<400> 3543

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180
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660

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<210> 3544

<211> 273

<212> PRT

<213> Homo sapiens

<400> 3544

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			20					25					30		
Lys	Ile	Val	Leu	Phe	Pro	His	Tyr	Glu	Glu	Gly	His	Ile	Pro	Gly	Ile
			35				40					45			
Leu	Ile	Ile	Ile	Phe	Tyr	Gly	Ile	Ser	Ile	Phe	Cys	Leu	Val	Ala	Leu
			50			55				60					
Val	Arg	Ala	Ser	Ile	Thr	Asp	Pro	Gly	Arg	Leu	Pro	Glu	Asn	Pro	Lys
65				70					75					80	
Ile	Pro	His	Gly	Glu	Arg	Glu	Phe	Trp	Glu	Leu	Cys	Asn	Lys	Cys	Asn
			85					90						95	
Leu	Met	Arg	Pro	Lys	Arg	Ser	His	His	Cys	Ser	Arg	Cys	Gly	His	Cys
			100					105					110		
Val	Arg	Arg	Met	Asp	His	His	Cys	Pro	Trp	Ile	Asn	Asn	Cys	Val	Gly
			115				120					125			
Glu	Asp	Asn	His	Trp	Leu	Phe	Leu	Gln	Leu	Cys	Phe	Tyr	Thr	Glu	Leu
			130			135					140				
Leu	Thr	Cys	Tyr	Ala	Leu	Met	Phe	Ser	Phe	Cys	His	Tyr	Tyr	Tyr	Phe
145				150					155						160
Leu	Pro	Leu	Lys	Lys	Arg	Asn	Leu	Asp	Leu	Phe	Val	Phe	Arg	His	Glu
			165					170						175	
Leu	Ala	Ile	Met	Arg	Leu	Ala	Ala	Phe	Met	Gly	Ile	Thr	Met	Leu	Val
			180					185					190		
Gly	Ile	Thr	Gly	Leu	Phe	Tyr	Thr	Gln	Leu	Ile	Gly	Ile	Ile	Thr	Pro
			195				200					205			
Cys	Ser	Leu	Ile	Leu	Leu	Lys	Cys	Gly	Ser	Val	Ser	Asn	Asn	Ser	Leu

210	215	220
Gly Asp Leu Met Lys Ile Ser Glu Thr Phe Ala Leu Arg Ile Pro Ser		
225	230	235
Phe Val Val Met Cys Pro Glu Asn Ser Ser Leu Arg Val Phe Asn Ser		240
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Val Lys Leu Leu Leu Cys Leu Asp Ser Pro Leu Ile Gln Trp Ser Thr		255
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Lys

<210> 3545

<211> 3657

<212> DNA

<213> Homo sapiens

<400> 3545

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<210> 3546

<211> 792

<212> PRT

<213> Homo sapiens

<400> 3546

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Gln	Glu	Val	Trp	Pro	Ile	Ile	Trp	Leu	Arg	Leu	Thr	Leu	Ala	Leu	Thr
			20					25					30		
Leu	Ala	Asp	Pro	Gly	Trp	Ala	Ser	Ile	Ser	Arg	Gly	Val	Leu	Val	Cys
		35					40					45			
Asp	Glu	Cys	Cys	Ser	Val	His	Arg	Ser	Leu	Gly	Arg	His	Ile	Ser	Ile
	50					55				60					
Val	Lys	His	Leu	Arg	His	Ser	Ala	Trp	Pro	Pro	Thr	Leu	Leu	Gln	Met
65					70					75				80	
Val	His	Thr	Leu	Ala	Ser	Asn	Gly	Ala	Asn	Ser	Ile	Trp	Glu	His	Ser
			85						90					95	
Leu	Leu	Asp	Pro	Ala	Gln	Val	Gln	Ser	Gly	Arg	Arg	Lys	Ala	Asn	Pro
			100					105					110		
Gln	Asp	Lys	Val	His	Pro	Ile	Lys	Ser	Glu	Phe	Ile	Arg	Ala	Lys	Tyr
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2708

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<210> 3547
<211> 1039
<212> DNA
<213> Homo sapiens
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420
agtccccaga actgtgggac accagatgac ttcagatgtc ccaatccgac aaagcagatc
480
tggacagtga atgaagctct aattcagaaa tggctgagct atccttctgg aaggtttcct
540

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 720
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 780
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 840
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 900
 ccactgaaag tacttgaaaa ctggtggtca gtacttgaac ctccactatt cctcaagata
 960
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 1020
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 1039

<210> 3548

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3548

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			20				25						30		
Gly	Gln	Leu	Gly	His	Asn	Ser	Thr	Ser	His	Glu	Ile	Asn	Pro	Arg	Lys
		35					40					45			
Val	Phe	Glu	Leu	Met	Gly	Ser	Ile	Val	Thr	Glu	Ile	Ala	Cys	Gly	Arg
	50				55					60					
Gln	His	Thr	Ser	Ala	Phe	Val	Pro	Ser	Ser	Gly	Arg	Ile	Tyr	Ser	Phe
65				70						75				80	
Gly	Leu	Gly	Gly	Asn	Gly	Gln	Leu	Gly	Thr	Gly	Ser	Thr	Ser	Asn	Arg
			85					90						95	
Lys	Ser	Pro	Phe	Thr	Val	Lys	Gly	Asn	Trp	Tyr	Pro	Tyr	Asn	Gly	Gln
		100					105						110		
Cys	Leu	Pro	Asp	Ile	Asp	Ser	Glu	Gly	Tyr	Phe	Cys	Val	Lys	Arg	Ile
		115					120					125			
Phe	Ser	Gly	Gly	Asp	Gln	Ser	Phe	Ser	His	Tyr	Ser	Ser	Pro	Gln	Asn
	130				135							140			
Cys	Gly	Pro	Pro	Asp	Asp	Phe	Arg	Cys	Pro	Asn	Pro	Thr	Lys	Gln	Ile
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Trp	Thr	Val	Asn	Glu	Ala	Leu	Ile	Gln	Lys	Trp	Leu	Ser	Tyr	Pro	Ser
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Gly	Arg	Phe	Pro	Val	Glu	Ile	Ala	Asn	Glu	Ile	Asp	Gly	Thr	Phe	Ser
		180					185						190		
Ser	Ser	Gly	Cys	Leu	Asn	Gly	Ser	Phe	Leu	Ala	Val	Ser	Asn	Asp	Asp
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His	Tyr	Arg	Thr	Gly	Thr	Arg	Phe	Ser	Gly	Val	Asp	Met	Asn	Ala	Ala
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<210> 3549
<211> 2542
<212> DNA
<213> Homo sapiens
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240
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300
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420
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660
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960

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1080
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<210> 3550
 <211> 500
 <212> PRT
 <213> Homo sapiens

<400> 3550

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      35           40           45
Ser Lys Glu Lys Glu Arg Ala Ser Leu Asp Lys Lys Arg Asp Lys Asp
      50           55           60
Tyr Arg Arg Lys Glu Ile Leu Pro Phe Glu Lys Met Lys Glu Gln Arg
      65           70           75           80
Leu Arg Glu His Leu Val Arg Phe Glu Arg Leu Arg Arg Ala Met Glu
      85           90           95
Leu Arg Arg Arg Arg Glu Ile Ala Glu Arg Glu Arg Arg Glu Arg Glu
      100           105           110
Arg Ile Arg Ile Ile Arg Glu Arg Glu Glu Arg Glu Arg Leu Gln Arg
      115           120           125
Glu Arg Glu Arg Leu Glu Ile Glu Arg Gln Lys Leu Glu Arg Glu Arg
      130           135           140
Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Ile Arg Ile Glu Gln Glu
      145           150           155           160
Arg Arg Lys Glu Ala Glu Arg Ile Ala Arg Glu Arg Glu Glu Leu Arg
      165           170           175
Arg Gln Gln Gln Gln Leu Arg Tyr Glu Gln Glu Lys Arg Asn Ser Leu
      180           185           190
Lys Arg Pro Arg Asp Val Asp His Arg Arg Asp Asp Pro Tyr Trp Ser
      195           200           205
Glu Asn Lys Lys Leu Ser Leu Asp Thr Asp Ala Arg Phe Gly His Gly
      210           215           220
Ser Asp Tyr Ser Arg Gln Gln Asn Arg Phe Asn Asp Phe Asp His Arg
      225           230           235           240
Glu Arg Gly Arg Phe Pro Glu Ser Ser Ala Val Gln Ser Ser Ser Phe
      245           250           255
Glu Arg Arg Asp Arg Phe Val Gly Gln Ser Glu Gly Lys Lys Ala Arg
      260           265           270
Pro Thr Ala Arg Arg Glu Asp Pro Ser Phe Glu Arg Tyr Pro Lys Asn
      275           280           285
Phe Ser Asp Ser Arg Arg Asn Glu Pro Pro Pro Pro Arg Asn Glu Leu
      290           295           300
Arg Glu Ser Asp Arg Arg Glu Val Arg Gly Glu Arg Asp Glu Arg Arg
      305           310           315           320
Thr Val Ile Ile His Asp Arg Pro Asp Ile Thr His Pro Arg His Pro
      325           330           335
Arg Glu Ala Gly Pro Asn Pro Ser Arg Pro Thr Ser Trp Lys Ser Asp
      340           345           350
Gly Ser Met Ser Thr Asp Lys Arg Glu Thr Arg Val Glu Arg Pro Glu
      355           360           365
Arg Ser Gly Arg Glu Val Ser Gly His Ser Val Arg Gly Ala Pro Pro
  
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370 375 380
 Gly Asn Arg Ser Ser Ala Ser Gly Tyr Gly Ser Arg Glu Gly Asp Arg
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 Gly Val Ile Thr Asp Arg Gly Gly Gly Ser Gln His Tyr Pro Glu Glu
 405 410 415
 Arg His Val Val Glu Arg His Gly Arg Asp Thr Ser Gly Pro Arg Lys
 420 425 430
 Glu Trp His Gly Pro Pro Ser Gln Gly Pro Ser Tyr His Asp Thr Arg
 435 440 445
 Arg Met Gly Asp Gly Arg Ala Gly Ala Gly Met Ile Thr Gln His Ser
 450 455 460
 Ser Asn Ala Ser Pro Ile Asn Arg Ile Val Gln Ile Ser Gly Asn Ser
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<210> 3551
 <211> 545
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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<210> 3552
 <211> 55
 <212> PRT
 <213> Homo sapiens

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 Ala Lys Lys Asp Met Leu Ala Ala Leu Lys Ser Arg Gln Glu Ala Leu

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Glu	Glu	Thr	Leu	Arg	Gln	Arg	Leu	Glu	Glu	Leu	Lys	Lys	Leu	Cys	Leu
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Arg	Glu	Ala	Val	Ser	Leu	Ser									
	50				55										

<210> 3553

<211> 1412

<212> DNA

<213> Homo sapiens

<400> 3553

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 120
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 180
 cccagactc cggatgagag tcttggtcct tctgatctgg agctgaggga gtgaaggag
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 gccaaagctg tcttgaaatt tatcgagggc atctctgaaa agaccctgag gagtactgtt
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 420
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 480
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<210> 3554

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3554

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		20						25					30		
Ser	Cys	Lys	Lys	Cys	Leu	Val	Ile	Asp	Asp	Gln	Leu	Asn	Ile	Leu	Pro
	35						40					45			
Ile	Ser	Ser	His	Val	Ala	Thr	Met	Glu	Ala	Leu	Pro	Pro	Gln	Thr	Pro
	50					55					60				
Asp	Glu	Ser	Leu	Gly	Pro	Ser	Asp	Leu	Glu	Leu	Arg	Glu	Leu	Lys	Glu
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Pro	Val	Gly	Val	Leu	Val	Asp	Cys	Cys	Lys
			85					90					95		
Thr	Leu	Asp	Gln	Ala	Lys	Ala	Val	Leu	Lys	Phe	Ile	Glu	Gly	Ile	Ser
		100						105					110		
Glu	Lys	Thr	Leu	Arg	Ser	Thr	Val	Ala	Leu	Thr	Ala	Ala	Arg	Gly	Arg
	115						120					125			
Gly	Lys	Ser	Ala	Ala	Leu	Gly	Leu	Ala	Ile	Ala	Gly	Ala	Val	Ala	Phe
	130					135					140				
Gly	Tyr	Ser	Asn	Ile	Phe	Val	Thr	Ser	Pro	Ser	Pro	Asp	Asn	Leu	His
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Thr	Leu	Phe	Glu	Phe	Val	Phe	Lys	Gly	Phe	Asp	Ala	Leu	Gln	Tyr	Gln
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Glu	His	Leu	Asp	Tyr	Glu	Ile	Ile	Gln	Ser	Leu	Asn	Pro	Glu	Phe	Asn
		180						185					190		
Lys	Ala	Val	Ile	Ile	Val	Asn	Val	Phe	Arg	Glu	His	Arg	Gln	Thr	Ile
	195					200						205			
Gln	Tyr	Ile	His	Pro	Ala	Asp	Ala	Val	Lys	Leu	Gly	Gln	Ala	Glu	Leu
	210					215					220				
Val	Val	Ile	Asp	Glu	Ala	Ala	Ala	Ile	Pro	Leu	Pro	Leu	Val	Lys	Ser
225					230					235				240	
Leu	Leu	Gly	Pro	Tyr	Leu	Val	Phe	Met	Ala	Ser	Thr	Ile	Asn	Gly	Tyr
			245					250					255		
Glu	Gly	Thr	Gly	Arg	Ser	Leu	Ser	Leu	Lys	Leu	Ile	Gln	Gln	Leu	Arg
		260						265					270		
Gln	Gln	Ser	Ala	Gln	Ser	Gln	Val	Ser	Thr	Thr	Ala	Glu	Asn	Lys	Thr
	275					280						285			
Thr	Thr	Thr	Ala	Arg	Leu	Ala	Ser	Ala	Arg	Thr	Leu	His	Glu	Val	Ser
	290					295					300				
Leu	Gln	Glu	Ser	Ile	Arg	Tyr	Ala	Pro	Gly	Asp	Ala	Val	Glu	Lys	Trp
305				310					315				320		
Leu	Asn	Asp	Leu	Leu	Cys	Leu	Asp	Cys	Leu	Asn	Ile	Thr	Arg	Ile	Val

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	340		345		350
Asp Thr Leu Phe Cys Tyr His Lys Ala Ser Glu Val Phe Leu Gln Arg					
	355		360		365
Leu Met Ala Leu Tyr Val Ala Ser His Tyr Lys Asn Ser Pro Asn Asp					
	370		375		380
Leu Gln Met Leu Ser Asp Ala Pro Ser His His Leu Phe Cys Leu Leu					
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Ile Gln Val					

<210> 3555
 <211> 1038
 <212> DNA
 <213> Homo sapiens

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<210> 3557
<211> 486

<212> DNA

<213> Homo sapiens

<400> 3557

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ctggat

486

<210> 3558

<211> 162

<212> PRT

<213> Homo sapiens

<400> 3558

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35 40 45His Ala Ala Arg Ser Leu Ser Glu Ile Ala Ile Asp Leu Thr Glu Thr
50 55 60Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly Lys
65 70 75 80Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gly Ala
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Leu Asp

<210> 3559

<211> 673

<212> DNA

<213> Homo sapiens

<400> 3559

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<210> 3560

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3560

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			20					25				30			
Phe	Lys	Phe	Glu	Ser	Thr	Asp	Glu	Asp	Lys	Arg	Lys	Lys	Leu	Cys	Glu
		35					40				45				
Gly	Ile	Phe	Lys	Val	Leu	Ile	Lys	Asp	Ile	Pro	Thr	Thr	Cys	Gln	Val
	50					55				60					
Ser	Cys	Leu	Glu	Val	Leu	Arg	Ile	Leu	Ser	Arg	Asp	Lys	Lys	Val	Leu
65					70				75				80		
Val	Pro	Val	Thr	Thr	Lys	Glu	Asn	Met	Gln	Ile	Leu	Leu	Arg	Leu	Ala
			85					90					95		
Lys	Leu	Asn	Glu	Leu	Asp	Asp	Ser	Leu	Glu	Lys	Val	Ser	Glu	Phe	Pro
		100						105				110			
Val	Ile	Val	Glu	Ser	Leu	Lys	Cys	Leu	Cys	Asn	Ile	Val	Phe	Asn	Ser
		115					120				125				
Gln	Met	Ala	Gln	Gln	Leu	Ser	Leu	Glu	Leu	Asn	Leu	Ala	Ala	Lys	Leu
	130					135					140				
Cys	Asn	Leu	Leu	Arg	Lys	Cys	Lys	Asp	Arg	Lys	Phe	Ile	Asn	Asp	Ile

145 150 155 160
 Lys Cys Phe Asp Leu Arg Leu Leu Phe Leu Leu Ser Leu Leu His Thr
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<210> 3561
 <211> 523
 <212> DNA
 <213> Homo sapiens

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<210> 3562
 <211> 106
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Met Glu Gly Trp Ala Gly Ser Gly Gly Val Gly Ser Gln Thr Asp Ser
 50 55 60
 Ala Trp Gly Leu Ala His Gly Val Glu Ala Glu Val Trp Trp Val Phe
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<210> 3563
 <211> 359
 <212> DNA
 <213> Homo sapiens

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<210> 3564
 <211> 82
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Cys Val Arg Ile Leu Leu Asp Pro Tyr Ser Arg Met Pro Ala Ser Ser
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<210> 3565
 <211> 580
 <212> DNA
 <213> Homo sapiens

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<210> 3566

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3566

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			20					25					30		
Arg	Ala	Thr	Pro	Gln	Glu	Val	Gly	Arg	Thr	Ser	Ala	His	Phe	Lys	Ser
		35					40					45			
Gln	Lys	Pro	Pro	Phe	Pro	Gly	Ala	Arg	Ala	Val	Pro	Arg	Tyr	Ala	Arg
	50					55					60				
Arg	Glu	Pro	Gly	Arg	Ala	Ala	Lys	Met	Ser	Gln	Pro	Lys	Lys	Arg	Lys
65					70					75					80
Leu	Glu	Ser	Gly	Gly	Gly	Ala	Glu	Gly	Gly	Glu	Gly	Thr	Glu	Glu	Glu
			85						90					95	
Asp	Gly	Ala	Glu	Arg	Glu	Ala	Ala	Leu	Glu	Arg	Pro	Arg	Thr	Thr	Lys
			100					105					110		
Arg	Glu	Arg	Asp	Gln	Leu	Tyr	Tyr	Glu	Cys	Tyr	Ser	Asp	Val	Ser	Val
		115					120					125			
His	Glu	Glu	Met	Ile	Ala	Asp	Arg	Val	Arg	Thr	Asp	Ala	Tyr	Arg	Trp
	130					135					140				
Val	Ser	Leu	Arg	Asn	Trp	Ala	Ala	Leu	Arg	Gly	Lys	Thr	Val	Leu	Asp
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<210> 3567

<211> 2811

<212> DNA

<213> Homo sapiens

<400> 3567

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<210> 3568

<211> 869

<212> PRT

<213> Homo sapiens

<400> 3568

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			20					25					30		
Phe	Gln	Lys	Gln	Leu	Arg	Gly	Gln	Ile	Ala	Arg	Arg	Val	Tyr	Arg	Gln
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Leu	Leu	Ala	Glu	Lys	Arg	Glu	Gln	Glu	Glu	Lys	Lys	Lys	Gln	Glu	Glu
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			65			70				75			80		
Arg	Arg	Glu	Ala	Glu	Leu	Arg	Ala	Gln	Gln	Glu	Glu	Glu	Thr	Arg	Lys

2726

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 Asp Ser Val Cys Ala Ser Asp Ser Pro Asp Arg Pro Asn Ser Phe Val
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 625 630 635 640
 Val Lys Asn Ser Pro Lys Met Ser Ser Leu Lys Leu Lys Lys Arg Trp
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 785 790 795 800
 Thr Thr Leu Gln Asp Glu Ala Ile Lys Ile Phe Asn Ser Leu Gln Gln
 805 810 815
 Leu Glu Ser Met Ser Asp Pro Ile Pro Ile Ile Gln Gly Ile Leu Gln
 820 825 830
 Thr Gly His Asp Leu Arg Pro Leu Arg Asp Glu Leu Tyr Cys Gln Leu
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<210> 3569

<211> 5070

<212> DNA

<213> Homo sapiens

<400> 3569

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<211> 893

<212> PRT

<213> Homo sapiens

<400> 3570

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His	Pro	Pro	Gly	Ala	Pro	Ser	Pro	Gly	Leu	Leu	Gln	Asp	Ser	Asp	Ser
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Leu	Ser	Gly	Ser	Tyr	Leu	Asp	Pro	Asn	Tyr	Gln	Ser	Ile	Lys	Trp	Gln
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Pro	His	Gln	Gln	Asn	Lys	Trp	Ala	Thr	Leu	Tyr	Asp	Ala	Asn	Tyr	Lys
			100					105					110		
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Gln	Val	Thr	Val	Tyr	Ile	Gly	Met	Leu	Gly	Glu	Pro	Lys	Tyr	Val	Lys
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Thr	Pro	Glu	Gly	Leu	Lys	Pro	Leu	Asp	Cys	Phe	Tyr	Leu	Lys	Leu	His
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		195					200					205			
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Gln	Arg	Tyr	Phe	Met	Leu	Val	Val	Ala	Leu	Gln	Ala	His	Ala	Gln	Asn
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Gln	Asn	Tyr	Thr	Leu	Ala	Ala	Gln	Ile	Ser	Glu	Arg	Ile	Ile	Val	Arg
		260					265						270		
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		275					280					285			
Arg	Ala	Gln	Val	Pro	Asp	Thr	Val	Phe	His	His	Gly	Arg	Val	Gly	Ile
	290					295					300				
Asn	Thr	Asp	Arg	Pro	Asp	Glu	Ala	Leu	Val	Val	His	Gly	Asn	Val	Lys
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Val	Met	Gly	Ser	Leu	Met	His	Pro	Ser	Asp	Leu	Arg	Ala	Lys	Glu	His
				325					330					335	
Val	Gln	Glu	Val	Asp	Thr	Thr	Glu	Gln	Leu	Lys	Arg	Ile	Ser	Arg	Met

2732

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Ser Leu Thr Leu Gln Met Asn Ser Ser Ser Pro Val Ser Val Val Leu				
	805		810	815
Cys Ser Leu Arg Ser Lys Glu Glu Pro Cys Glu Glu Gly Ser Leu Pro				
	820		825	830
Gln Ser Leu His Thr His Gln Asp Thr Gln Gly Thr Ser His Arg Trp				
	835		840	845
Pro Ile Thr Ile Leu Ser Phe Arg Glu Phe Thr Tyr His Phe Arg Val				
	850		855	860
Ala Leu Leu Gly Gln Ala Asn Cys Ser Ser Glu Ala Leu Ala Gln Pro				
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Ala Thr Asp Tyr His Phe His Phe Tyr Arg Leu Cys Asp				880
	885		890	

<210> 3571
 <211> 528
 <212> DNA
 <213> Homo sapiens

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 420
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<210> 3572
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3572
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 35 40 45
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His

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Leu	Leu	Val	Leu	Gly	Leu	Tyr	Leu	Gly	Pro	Gln	Pro	Asp	Ser	Arg	Pro
65			70					75							80
Ala	Leu	Leu	Pro	Gln	Val	Ser	Thr	Gln	Val	Ala	Gln	Ala	Ala	Leu	Arg
			85					90						95	
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<210> 3573

<211> 1236

<212> DNA

<213> Homo sapiens

<400> 3573

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240
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<211> 361

<212> PRT

<213> Homo sapiens

<400> 3574

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			20					25					30		
Ile	Asn	Pro	Ser	His	Thr	His	Ser	Pro	Ile	Phe	Ser	Ile	His	Ser	Gly
		35					40					45			
Thr	Cys	Val	Phe	Asn	Lys	Pro	Gly	Gly	His	Thr	Ala	Ser	His	Thr	His
	50					55					60				
Thr	Leu	Thr	Ala	Thr	Asn	Pro	Arg	Ser	His	Ala	His	Ala	Asp	Ala	Pro
65					70					75					80
Cys	Gly	Thr	Cys	Thr	His	Asn	His	Thr	Cys	Val	Gln	Ser	Gly	Arg	His
				85					90					95	
Thr	His	Thr	Cys	Ile	Glu	Ala	Ser	Leu	Trp	Thr	Pro	Ser	Ala	Ser	His
			100					105					110		
Arg	Gly	Gly	Ser	Pro	Ala	Val	Phe	Asp	Trp	Phe	Phe	Glu	Ala	Ala	Cys
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Pro	Ala	Ser	Val	Gln	Glu	Asp	Pro	Pro	Ile	Leu	Arg	Gln	Phe	Pro	Pro
						135					140				
Asp	Phe	Arg	Asp	Gln	Glu	Ala	Met	Gln	Met	Val	Pro	Lys	Phe	Cys	Phe
145					150					155					160
Pro	Phe	Asp	Val	Glu	Arg	Gly	Pro	Pro	Ser	Pro	Ala	Val	Gln	His	Phe
				165					170					175	
Thr	Phe	Ala	Leu	Thr	Asp	Leu	Ala	Gly	Asn	Arg	Arg	Phe	Gly	Phe	Cys
			180					185					190		
Arg	Leu	Arg	Ala	Gly	Thr	Gln	Ser	Cys	Leu	Cys	Ile	Leu	Ser	His	Leu
		195					200					205			
Pro	Trp	Phe	Glu	Val	Phe	Tyr	Lys	Leu	Leu	Asn	Thr	Val	Gly	Asp	Leu
	210					215					220				
Leu	Ala	Gln	Asp	Gln	Val	Thr	Glu	Ala	Glu	Glu	Leu	Leu	Gln	Asn	Leu
225					230					235					240
Phe	Gln	Gln	Ser	Leu	Ser	Gly	Pro	Gln	Ala	Ser	Val	Gly	Leu	Glu	Leu
				245					250					255	
Gly	Ser	Gly	Val	Thr	Val	Ser	Ser	Gly	Gln	Gly	Ile	Pro	Pro	Pro	Thr
			260					265					270		
Arg	Gly	Asn	Ser	Lys	Pro	Leu	Ser	Cys	Phe	Val	Ala	Pro	Asp	Ser	Gly
		275					280						285		
Arg	Leu	Pro	Ser	Ile	Pro	Glu	Asn	Arg	Asn	Leu	Thr	Glu	Leu	Val	Val
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Ala	Val	Thr	Asp	Glu	Asn	Ile	Val	Gly	Leu	Phe	Ala	Ala	Leu	Leu	Ala
305					310					315					320
Glu	Arg	Arg	Val	Leu	Leu	Thr	Ala	Ser	Lys	Leu	Ser	Thr	Leu	Arg	Arg
				325					330					335	
Gly	Pro	Pro	Gly	Arg	Gly	Gly	Ser	Arg	Ala	Trp	Leu	Arg	Pro	Gly	Gly
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355

360

<210> 3575

<211> 769

<212> DNA

<213> Homo sapiens

<400> 3575

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<210> 3576

<211> 205

<212> PRT

<213> Homo sapiens

<400> 3576

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 Ser Thr Thr Lys Gln Asp Lys Ile Ser Phe Ile Phe Ala Leu Thr
 35 40 45
 Ile Pro Lys Met Met Phe Leu Pro Asn Glu Cys Leu His Phe Ile Phe
 50 55 60
 Gln Thr Cys Ser Leu Lys Pro Ile Ile Ala Pro Leu Arg Asn Ile Phe
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1020

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<210> 3578

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3578

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			20					25					30		
Ile	Ser	Glu	His	Phe	His	Pro	Thr	Val	Ile	Gly	Glu	Ser	Met	Tyr	Gly
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Asp	Phe	Glu	Glu	Ala	Phe	Asp	His	Leu	Gln	Asn	Arg	Leu	Ile	Ala	Thr
	50					55					60				
Lys	Asn	Pro	Glu	Glu	Ile	Arg	Gly	Gly	Gly	Leu	Leu	Lys	Tyr	Ser	Asn
65					70					75					80
Leu	Leu	Val	Arg	Asp	Phe	Arg	Pro	Thr	Asp	Gln	Glu	Glu	Ile	Lys	Thr
			85						90					95	
Leu	Glu	Arg	Tyr	Met	Cys	Ser	Arg	Phe	Phe	Ile	Asp	Phe	Pro	Asp	Ile
			100					105					110		
Leu	Glu	Gln	Gln	Arg	Lys	Leu	Glu	Thr	Tyr	Leu	Gln	Asn	His	Phe	Ala
		115					120					125			
Glu	Glu	Glu	Arg	Ser	Lys	Tyr	Asp	Tyr	Leu	Met	Ile	Leu	Arg	Arg	Val
		130					135				140				
Val	Asn	Glu	Ser	Thr	Val	Cys	Leu	Met	Gly	His	Glu	Arg	Arg	Gln	Thr
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Leu	Asn	Leu	Ile	Ser	Leu	Leu	Ala	Leu	Arg	Val	Leu	Gly	Gly	Thr	Lys
			165						170					175	
His	His	Pro	Pro	Val	Pro	Pro	Arg	Ser	Pro	Val	Thr	Thr	Ser	Gly	Pro
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Leu	Ser	Gln													
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<210> 3579

<211> 755

<212> DNA

<213> Homo sapiens

<400> 3579

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 <211> 121
 <212> PRT
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 50 55 60
 Phe Ser Gln Asp Ile Val Leu Ser Trp Asn Leu Ala Gly Gly Trp Ser
 65 70 75 80
 Ile Cys Ile Trp Ser Ile Ala Arg Leu Ser His Leu Ser Ser Asp Gln
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<211> 356

<212> PRT

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<212> DNA

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	130					135					140				
Ser	Leu	Asp	Lys	Cys	Lys	Asn	Asn	Glu	Asn	Leu	Gln	Gln	Ile	Leu	Thr
145					150					155				160	
Asn	Ala	Thr	Ile	Met	Val	Val	Ser	Val	Thr	Ala	Ser	Thr	Thr	Gln	Gly
			165					170						175	
Gln	Gln	Leu	Ser	Glu	Glu	Glu	Leu	Glu	Arg	Leu	Glu	Glu	Ala	Cys	Asp

	180		185		190										
Met	Ala	Leu	Glu	Leu	Asn	Ala	Ser	Lys	His	Arg	Ile	Tyr	Glu	Tyr	Val
	195		200		205										
Glu	Ser	Arg	Met	Ser	Phe	Ile	Ala	Pro	Asn	Leu	Ser	Ile	Ile	Ile	Gly
	210		215		220										
Ala	Ser	Thr	Ala	Ala	Lys	Ile	Met	Gly	Val	Ala	Gly	Gly	Leu	Thr	Asn
225			230		235									240	
Leu	Ser	Lys	Met	Pro	Ala	Cys	Asn	Ile	Met	Leu	Leu	Gly	Ala	Gln	Arg
			245		250									255	
Lys	Thr	Leu	Ser	Gly	Phe	Ser	Ser	Thr	Ser	Val	Leu	Pro	His	Thr	Gly
			260		265									270	
Tyr	Ile	Tyr	His	Ser	Asp	Ile	Val	Gln	Ser	Leu	Pro	Pro	Asp	Leu	Arg
	275		280		285										
Arg	Lys	Ala	Ala	Arg	Leu	Val	Ala	Ala	Lys	Cys	Thr	Leu	Ala	Ala	Arg
	290		295		300										
Val	Asp	Ser	Phe	His	Glu	Ser	Thr	Glu	Gly	Lys	Val	Gly	Tyr	Glu	Leu
305			310		315									320	
Lys	Asp	Glu	Ile	Glu	Arg	Lys	Phe	Asp	Lys	Trp	Gln	Glu	Pro	Pro	Pro
			325		330									335	
Val	Lys	Gln	Val	Lys	Pro	Leu	Pro	Ala	Pro	Leu	Asp	Gly	Gln	Arg	Lys
			340		345									350	
Lys	Arg	Gly	Gly	Arg	Arg	Tyr	Arg	Lys	Met	Lys	Glu	Arg	Leu	Gly	Leu
	355		360		365										
Thr	Glu	Ile	Arg	Lys	Gln	Ala	Asn	Arg	Met	Ser	Phe	Gly	Glu	Ile	Glu
	370		375		380										
Glu	Asp	Ala	Tyr	Gln	Glu	Asp	Leu	Gly	Phe	Ser	Leu	Gly	His	Leu	Gly
385			390		395									400	
Lys	Ser	Gly	Ser	Gly	Arg	Val	Arg	Gln	Thr	Gln	Val	Asn	Glu	Ala	Thr
			405		410									415	
Lys	Ala	Arg	Ile	Ser	Lys	Thr	Leu	Gln	Arg	Thr	Leu	Gln	Lys	Gln	Ser
			420		425									430	
Val	Val	Tyr	Gly	Gly	Lys	Ser	Thr	Ile	Arg	Asp	Arg	Ser	Ser	Gly	Thr
	435		440		445										
Ala	Ser	Ser	Val	Ala	Phe	Thr	Pro	Leu	Gln	Gly	Leu	Glu	Ile	Val	Asn
	450		455		460										
Pro	Gln	Ala	Ala	Glu	Lys	Lys	Val	Ala	Glu	Ala	Asn	Gln	Lys	Tyr	Phe
465			470		475									480	
Ser	Ser	Met	Ala	Glu	Phe	Leu	Lys	Val	Lys	Gly	Glu	Lys	Ser	Gly	Leu
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Met Ser Thr

<210> 3589

<211> 675

<212> DNA

<213> Homo sapiens

<400> 3589

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120

aatagttctt gaccaggtc cctccatgaa cctcgaagct gaccagcca taggggggat

180

accttcattt cagtcccagc agcctcccc aaccagtcag ggtccctgaa gagcatctgg
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 300
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 360
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 tgtaagggcc ttctgagca gacacaaagg agccctgagc tgctgggggt gatgaggagc
 480
 ggaggcaggg ccaggcagag ggtctgcaaa gaattacact ggaaagggtg aagggggaca
 540
 ttgggtctag tggtttggcc tgtggagagc tgtcaggaga ggggaggatg aggttgggtg
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 660
 gaggcagcca cgcgt
 675

<210> 3590
 <211> 117
 <212> PRT
 <213> Homo sapiens

<400> 3590
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 20 25 30
 Asp Pro Met Ser Pro Phe His Leu Ser Ser Val Ile Leu Cys Arg Pro
 35 40 45
 Ser Ala Trp Pro Cys Leu Arg Ser Ser Ser Pro Pro Ala Ala Gln Gly
 50 55 60
 Ser Phe Val Ser Ala Gln Glu Gly Pro Tyr Asn Pro Ser Trp Leu Trp
 65 70 75 80
 Pro Gly Pro Cys Phe Val Ser Glu Leu Gly Gly Pro Ile Pro Lys His
 85 90 95
 Trp Leu Gly Asn Ser Tyr Pro Ile Cys Cys Leu Gly Ser Ala Trp Phe
 100 105 110
 Phe Thr His Ile Ser
 115

<210> 3591
 <211> 669
 <212> DNA
 <213> Homo sapiens

<400> 3591
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 120
 cgatgggtctt catcaggggt gattcctaata gaaaaaatac gaaatattgg aatctcagct
 180

cacattgatt ctgggaaaac tacattaaca gaacgagtc tttactacac tggcagaatt
 240
 gcaaagatgc atgaggtgaa aggtaaagat ggagttggtg ctgtcatgga ttccatggaa
 300
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 360
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 420
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 480
 cagaccatga ctgtcaatcg tcagatgaag cgctacaacg ttccgtttct aacttttatt
 540
 aacaaattgg accgaatggg ctccaaccca gccagggccc tgcagcaa at gaggtctaaa
 600
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 attgtagat
 669

<210> 3592

<211> 223

<212> PRT

<213> Homo sapiens

<400> 3592

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Ala	Ala	Leu	Gly	Arg	Gly	Arg	Ala	Pro	Ala	Ser	Leu	Gly	Trp	Gln	Arg
		20						25					30		
Lys	Gln	Val	Asn	Trp	Lys	Ala	Cys	Arg	Trp	Ser	Ser	Ser	Gly	Val	Ile
		35					40						45		
Pro	Asn	Glu	Lys	Ile	Arg	Asn	Ile	Gly	Ile	Ser	Ala	His	Ile	Asp	Ser
	50					55					60				
Gly	Lys	Thr	Thr	Leu	Thr	Glu	Arg	Val	Leu	Tyr	Tyr	Thr	Gly	Arg	Ile
65					70					75				80	
Ala	Lys	Met	His	Glu	Val	Lys	Gly	Lys	Asp	Gly	Val	Gly	Ala	Val	Met
				85					90					95	
Asp	Ser	Met	Glu	Leu	Glu	Arg	Gln	Arg	Gly	Ile	Thr	Ile	Gln	Ser	Ala
			100					105					110		
Ala	Thr	Tyr	Thr	Met	Trp	Lys	Asp	Val	Asn	Ile	Asn	Ile	Ile	Asp	Thr
	115						120					125			
Pro	Gly	His	Val	Asp	Phe	Thr	Ile	Glu	Val	Glu	Arg	Ala	Leu	Arg	Val
	130					135					140				
Leu	Asp	Gly	Ala	Val	Leu	Val	Leu	Cys	Ala	Val	Gly	Gly	Val	Gln	Cys
145					150					155				160	
Gln	Thr	Met	Thr	Val	Asn	Arg	Gln	Met	Lys	Arg	Tyr	Asn	Val	Pro	Phe
				165					170					175	
Leu	Thr	Phe	Ile	Asn	Lys	Leu	Asp	Arg	Met	Gly	Ser	Asn	Pro	Ala	Arg
			180					185					190		
Ala	Leu	Gln	Gln	Met	Arg	Ser	Lys	Leu	Asn	His	Asn	Ala	Ala	Phe	Met
	195						200					205			
Gln	Ile	Pro	Met	Gly	Leu	Glu	Gly	Asn	Phe	Lys	Gly	Ile	Val	Asp	
	210					215					220				

<210> 3593
 <211> 1005
 <212> DNA
 <213> Homo sapiens

<400> 3593
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 120
 ccctcaagca acggatcccc atggcgcttg ttgggcgcgt tgtgcctgca gcggccacct
 180
 gtagtctcca agccgttgac cccattgcag gaagagatgg cgtctctact gcagcagatt
 240
 gagatagaga gaagcctgta ttcagaccac gagcttcgtg ctctggatga aaaccagcga
 300
 ctggcaaaga agaaagctga ccttcattgat gaagaagatg aacaggatat attgctggcg
 360
 caagatttgg aagatatgtg ggagcagaaa tttctacagt tcaaacttgg agctcgcata
 420
 acagaagctg atgaaaagaa tgaccgaaca tccctgaaca ggaagctaga caggaacctt
 480
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 540
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 660
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 840
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 1005

<210> 3594
 <211> 282
 <212> PRT
 <213> Homo sapiens

<400> 3594
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 35 40 45
 Arg Leu Leu Gly Ala Leu Cys Leu Gln Arg Pro Pro Val Val Ser Lys

50		55		60
Pro Leu Thr	Pro Leu Gln	Glu Glu Met	Ala Ser	Leu Leu Gln
65	70	75	80	
Glu Ile Glu	Arg Ser Leu	Tyr Ser Asp	His Glu	Leu Arg Ala
	85	90	95	
Glu Asn Gln	Arg Leu Ala	Lys Lys Lys	Ala Asp	Leu His Asp
	100	105	110	
Asp Glu Gln	Asp Ile Leu	Leu Ala Gln	Asp Leu	Glu Asp Met
	115	120	125	
Gln Lys Phe	Leu Gln Phe	Lys Leu Gly	Ala Arg	Ile Thr Glu
	130	135	140	
Glu Lys Asn	Asp Arg Thr	Ser Leu Asn	Arg Lys	Leu Asp Arg
	145	150	155	
Val Leu Leu	Val Arg Glu	Lys Phe Gly	Asp Gln	Asp Val Trp
	165	170	175	
Pro Gln Ala	Glu Trp Gln	Pro Gly Glu	Thr Leu	Arg Gly Thr
	180	185	190	
Arg Thr Leu	Ala Thr Leu	Ser Glu Asn	Asn Met	Glu Ala Lys
	195	200	205	
Gly Asn Ala	Pro Cys Gly	His Tyr Thr	Phe Lys	Phe Pro Gln
	210	215	220	
Arg Thr Glu	Ser Asn Leu	Gly Ala Lys	Val Phe	Phe Lys Ala
	225	230	235	
Leu Leu Thr	Gly Asp Phe	Ser Gln Ala	Gly Asn	Lys Gly His
	245	250	255	
Trp Val Thr	Lys Asp Glu	Leu Gly Asp	Tyr Leu	Lys Pro Lys
	260	265	270	
Ala Gln Val	Arg Arg Phe	Val Ser Asp	Leu	
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<210> 3595

<211> 1903

<212> DNA

<213> Homo sapiens

<400> 3595

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180
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240
tcccaggag aatttgaagg ttctgtagct gtggtgaaca aggccatgag tgccaagttt
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360
gagaaggaca agttcctcac cctgacttc acctccctgg atgttctcac ctctgctggc
420
tccggcatcc ctgccggcat caacatcccc aactacgatg atctgaggca gacggaaggc
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tttaagaacg tgctgctggg gaatgtgctg gctgtggcct acgccacgca gcgggagaag
540

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660
gacgaaaaag gagcattcaa ctttgaccag gaaacagtga tcaaccaga gacgggagag
720
cagattcaga gctggtatcg gagcggggag acctgggata gcaagttcag caccatcgcc
780
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840
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1020
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1620
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1740
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1800
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accagacaaa taaatattag agacaaccac catcaaaaaa aaa
1903

<210> 3596

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3596

Phe Gln Val Thr Arg Gly Asp Tyr Ala Pro Ile Leu Gln Lys Val Val


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20           25           30
Gln Met Leu Ala Gln Tyr Ile Glu Ser Phe Thr Gln Gly Ser Ile Glu
35           40           45
Ala His Lys Arg Gly Ser Arg Phe Trp Ile Gln Asp Lys Gly Pro Ile
50           55           60
Val Glu Ser Tyr Ile Gly Phe Ile Glu Ser Tyr Arg Asp Pro Phe Gly
65           70           75           80
Ser Arg Gly Glu Phe Glu Gly Phe Val Ala Val Val Asn Lys Ala Met
85           90           95
Ser Ala Lys Phe Glu Arg Leu Val Ala Ser Ala Glu Gln Leu Leu Lys
100          105          110
Glu Leu Pro Trp Pro Pro Thr Phe Glu Lys Asp Lys Phe Leu Thr Pro
115          120          125
Asp Phe Thr Ser Leu Asp Val Leu Thr Phe Ala Gly Ser Gly Ile Pro
130          135          140
Ala Gly Ile Asn Ile Pro Asn Tyr Asp Asp Leu Arg Gln Thr Glu Gly
145          150          155          160
Phe Lys Asn Val Ser Leu Gly Asn Val Leu Ala Val Ala Tyr Ala Thr
165          170          175
Gln Arg Glu Lys Leu Thr Phe Leu Glu Glu Asp Asp Lys Asp Leu Tyr
180          185          190
Ile Leu Trp Lys Gly Pro Ser Phe Asp Val Gln Val Gly Leu His Glu
195          200          205
Leu Leu Gly His Gly Ser Gly Lys Leu Phe Val Gln Asp Glu Lys Gly
210          215          220
Ala Phe Asn Phe Asp Gln Glu Thr Val Ile Asn Pro Glu Thr Gly Glu
225          230          235          240
Gln Ile Gln Ser Trp Tyr Arg Ser Gly Glu Thr Trp Asp Ser Lys Phe
245          250          255
Ser Thr Ile Ala Ser Ser Tyr Glu Glu Cys Arg Ala Glu Ser Val Gly
260          265          270
Leu Tyr Leu Cys Leu His Pro Gln Val Leu Glu Ile Phe Gly Phe Glu
275          280          285
Gly Ala Asp Ala Glu Asp Val Ile Tyr Val Asn Trp Leu Asn Met Val
290          295          300
Arg Ala Gly Leu Leu Ala Leu Glu Phe Tyr Thr Pro Glu Ala Phe Asn
305          310          315          320
Trp Arg Gln Ala His Met Gln Ala Arg Phe Val Ile Leu Arg Val Leu
325          330          335
Leu Glu Ala Gly Glu Gly Leu Val Thr Ile Thr Pro Thr Thr Gly Ser
340          345          350
Asp Gly Arg Pro Asp Ala Arg Val Arg Leu Asp Arg Ser Lys Ile Arg
355          360          365
Ser Val Gly Lys Pro Ala Leu Glu Arg Phe Leu Arg Arg Leu Gln Val
370          375          380
Leu Lys Ser Thr Gly Asp Val Ala Gly Gly Arg Ala Leu Tyr Glu Gly
385          390          395          400
Tyr Ala Thr Val Thr Asp Ala Pro Pro Glu Cys Phe Leu Thr Leu Arg
405          410          415
Asp Thr Val Leu Leu Arg Lys Glu Ser Arg Lys Leu Ile Val Gln Pro
420          425          430
Asn Thr Arg Leu Glu Gly Asn Gly Ser Asp Val Gln Leu Leu Glu Tyr

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	435		440		445	
Glu	Ala	Ser	Ala	Ala	Gly	Leu
	450		455		460	
Glu	Asp	Gly	Pro	Glu	Leu	Glu
465			470		475	
Asp	Ala	Arg	Phe	Trp	Lys	Gly
		485			490	
						495

<210> 3597
 <211> 1090
 <212> DNA
 <213> Homo sapiens

<400> 3597
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 120
 gaaaatggtg ttctgctgtg tgatttgatt aataagctta aacctggcgt cattaagaag
 180
 atcaatagac tgtctacacc aatagcagga ttggataata taaacgtttt cttgaaagct
 240
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 300
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 360
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 420
 aatttgaaag cgtttgagaa tcttttagga caagcactga cgaaggcact cgaagactcc
 480
 agcttcctga aaagaagtgg cagggacagt ggctacggtg acatctggtg tcctgaacgt
 540
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 600
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 660
 gaaggttttg aaagtgacac agattcggaa ttacattca agatgcagga ttataataaa
 720
 gatgatatgt cgtatcgaag gatttcggct gttgagcaa agactgcgtt acccttcaat
 780
 cgttttttac ccaacaaaag tagacagcca tcctatgtac cagcacctct gagaaagaaa
 840
 aagccagaca aacatgagga taacagaaga agttgggcaa gcccggttta tacagaagca
 900
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 960
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<210> 3598

<211> 159
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Pro Lys Thr Ala Leu Pro Phe Asn Arg Phe Leu Pro Asn Lys Ser Arg
 50 55 60
 Gln Pro Ser Tyr Val Pro Ala Pro Leu Arg Lys Lys Lys Pro Asp Lys
 65 70 75 80
 His Glu Asp Asn Arg Arg Ser Trp Ala Ser Pro Val Tyr Thr Glu Ala
 85 90 95
 Asp Gly Thr Phe Ser Arg Ser Lys Ser Met Ser Asp Val Ser Ala Glu
 100 105 110
 Asp Val Gln Asn Leu Arg Gln Leu Arg Tyr Glu Glu Met Gln Lys Ile
 115 120 125
 Lys Ser Gln Leu Lys Glu Gln Asp Gln Lys Trp Gln Asp Asp Leu Ala
 130 135 140
 Lys Trp Lys Asp Arg Arg Lys Ser Tyr Thr Ser Asp Leu Gln Lys
 145 150 155

<210> 3599
 <211> 691
 <212> DNA
 <213> Homo sapiens

<400> 3599
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 480
 cagtcagatg gggccagggt gggtagcccc caaggcttct cgcattggcc taagaggcct
 540
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 660

tgctgctgct cctctctctc cctgcacgcg t
691

<210> 3600
<211> 98
<212> PRT
<213> Homo sapiens

<400> 3600
Met Gly Ser Cys Tyr Lys Thr Lys Lys Phe Leu Leu Ser Leu Ala Glu
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Asn Lys Leu Gly Pro Cys Met Leu Leu Ala Leu Arg Gly Asn Gln Thr
20 25 30
Met Val Glu Val Arg Ser Trp Ser Gly Ser Leu Val Gly Trp Leu Ala
35 40 45
Pro Arg Pro Leu Ser Val Pro Ile Glu His Leu Leu Gly Ala Lys Asn
50 55 60
Cys Cys Arg His Gly Gly Gln Trp Val Arg Arg Ala Val Pro Ala Val
65 70 75 80
Leu Ser Leu Val Gly Ala Ser Ser Leu His His Ala Val Tyr Leu Phe
85 90 95
Leu Leu

<210> 3601
<211> 2963
<212> DNA
<213> Homo sapiens

<400> 3601
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2340

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 2700
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 2820
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 2940
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 2963

<210> 3602

<211> 299

<212> PRT

<213> Homo sapiens

<400> 3602

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 Glu Ala Arg Glu Leu Met Tyr Ser Gly Ala Leu Leu Phe Ser His
 35 40 45
 Gly Gln Gln Asn Ser Ala Ala Asp Leu Ser Met Leu Val Leu Glu Ser
 50 55 60
 Leu Glu Lys Ala Glu Val Glu Val Ala Asp Glu Leu Leu Glu Asn Leu
 65 70 75 80
 Ala Lys Val Phe Ser Leu Met Asp Pro Asn Ser Pro Glu Arg Val Thr
 85 90 95
 Phe Val Ser Arg Ala Leu Lys Trp Ser Ser Gly Gly Ser Gly Lys Leu
 100 105 110
 Gly His Pro Arg Leu His Gln Leu Leu Ala Leu Thr Leu Trp Lys Glu
 115 120 125
 Gln Asn Tyr Cys Glu Ser Arg Tyr His Phe Leu His Ser Ala Asp Gly
 130 135 140
 Glu Gly Cys Ala Asn Met Leu Val Glu Tyr Ser Thr Ser Arg Gly Phe
 145 150 155 160
 Arg Ser Glu Val Asp Met Phe Val Ala Gln Ala Val Leu Gln Phe Leu
 165 170 175
 Cys Leu Lys Asn Lys Ser Ser Ala Ser Val Val Phe Thr Thr Tyr Thr
 180 185 190
 Gln Lys His Pro Ser Ile Glu Asp Gly Pro Pro Phe Val Glu Pro Leu

195	200	205
Leu Asn Phe Ile Trp Phe Leu Leu Leu Ala Val Asp Gly Gly Lys Leu		
210	215	220
Thr Val Phe Thr Val Leu Cys Glu Gln Tyr Gln Pro Ser Leu Arg Arg		
225	230	235
Asp Pro Met Tyr Asn Glu Tyr Leu Asp Arg Ile Gly Gln Leu Phe Phe		240
	245	250
Gly Val Pro Pro Lys Gln Thr Ser Ser Tyr Gly Gly Leu Leu Gly Asn		255
	260	265
Leu Leu Thr Ser Leu Met Gly Ser Ser Glu Gln Glu Asp Gly Glu Glu		270
	275	280
Ser Pro Ser Asp Gly Ser Pro Ile Glu Leu Asp		285
290	295	

<210> 3603

<211> 1082

<212> DNA

<213> Homo sapiens

<400> 3603

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120
agagagccga tgatttttaa atgtgtgttt gtgggtgaaa tggctgcgca ggtcggagcg
180
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240
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360
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420
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900
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960
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1020

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1080

tt

1082

<210> 3604

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3604

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Met Lys Met Val Lys Pro Arg Glu Pro Met Ile Phe Lys Cys Val Phe
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Val Gly Glu Met Ala Ala Gln Val Gly Ala Val Arg Val Val Arg Ala
      20           25           30
Val Ala Ala Gln Glu Glu Pro Asp Lys Glu Gly Lys Glu Lys Pro His
      35           40           45
Ala Gly Val Ser Pro Arg Gly Val Lys Arg Gln Arg Arg Ser Ser Ser
      50           55           60
Gly Gly Ser Gln Glu Lys Arg Gly Arg Pro Ser Gln Glu Pro Pro Leu
      65           70           75           80
Ala Pro Pro His Arg Arg Arg Arg Ser Arg Gln His Pro Gly Pro Leu
      85           90           95
Pro Pro Thr Asn Ala Ala Pro Thr Val Pro Gly Pro Val Glu Pro Leu
      100          105          110
Leu Leu Pro Pro Pro Pro Pro Ser Leu Ala Pro Ala Gly Pro Ala
      115          120          125
Val Ala Ala Pro Leu Pro Ala Pro Ser Thr Arg Pro Ser Ser Pro Ser
      130          135          140
Arg Leu
145

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<210> 3605

<211> 2004

<212> DNA

<213> Homo sapiens

<400> 3605

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120
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360
acctttgtgt ccagagccct gaagtgttcc agtgggggct ccgggaagct gggccacccc
420
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480

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660
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1920
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1980
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2004

<210> 3606

<211> 324
 <212> PRT
 <213> Homo sapiens

<400> 3606
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 Lys Gly Asp Tyr Tyr Glu Ala His Gln Met Tyr Arg Thr Leu Phe Phe
 35 40 45
 Arg Tyr Met Ser Gln Ser Lys His Thr Glu Ala Arg Glu Leu Met Tyr
 50 55 60
 Ser Gly Ala Leu Leu Phe Phe Ser His Gly Gln Gln Asn Ser Ala Ala
 65 70 75 80
 Asp Leu Ser Met Leu Val Leu Glu Ser Leu Glu Lys Ala Glu Val Glu
 85 90 95
 Val Ala Asp Glu Leu Leu Glu Asn Leu Ala Lys Val Phe Ser Leu Met
 100 105 110
 Asp Pro Asn Ser Pro Glu Arg Val Thr Phe Val Ser Arg Ala Leu Lys
 115 120 125
 Trp Ser Ser Gly Gly Ser Gly Lys Leu Gly His Pro Arg Leu His Gln
 130 135 140
 Leu Leu Ala Leu Thr Leu Trp Lys Glu Gln Asn Tyr Cys Glu Ser Arg
 145 150 155 160
 Tyr His Phe Leu His Ser Ala Asp Gly Glu Gly Cys Ala Asn Met Leu
 165 170 175
 Val Glu Tyr Ser Thr Ser Arg Gly Phe Arg Ser Glu Val Asp Met Phe
 180 185 190
 Val Ala Gln Ala Val Leu Gln Phe Leu Cys Leu Lys Asn Lys Ser Ser
 195 200 205
 Ala Ser Val Val Phe Thr Thr Tyr Thr Gln Lys His Pro Ser Ile Glu
 210 215 220
 Asp Gly Pro Pro Phe Val Glu Pro Leu Leu Asn Phe Ile Trp Phe Leu
 225 230 235 240
 Leu Leu Ala Val Asp Gly Gly Lys Leu Thr Val Phe Thr Val Leu Cys
 245 250 255
 Glu Gln Tyr Gln Pro Ser Leu Arg Arg Asp Pro Met Tyr Asn Glu Tyr
 260 265 270
 Leu Asp Arg Ile Gly Gln Leu Phe Phe Gly Val Pro Pro Lys Gln Thr
 275 280 285
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 Ser Ser Glu Gln Glu Asp Gly Glu Glu Ser Pro Ser Asp Gly Ser Pro
 305 310 315 320
 Ile Glu Leu Asp

<210> 3607
 <211> 1726
 <212> DNA
 <213> Homo sapiens

<400> 3607

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1620

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 1726

<210> 3608

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3608

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 Glu Val Lys Trp Ser Val Arg Met Thr Leu Cys Ala Gly Ile Cys Ser
 35 40 45
 Tyr Glu Gly Lys Gly Gly Met Cys Ser Ile Arg Leu Ser Glu Pro Leu
 50 55 60
 Leu Lys Leu Arg Pro Arg Lys Asp Leu Val Glu Thr Leu Leu His Glu
 65 70 75 80
 Met Ile His Ala Tyr Leu Phe Val Thr Asn Asn Asp Lys Asp Arg Glu
 85 90 95
 Gly His Gly Pro Glu Phe Cys Lys His Met His Arg Ile Asn Ser Leu
 100 105 110
 Thr Gly Ala Asn Ile Thr Val Tyr His Thr Phe His Asp Glu Val Asp
 115 120 125
 Glu Tyr Arg Arg His Trp Trp Arg Cys Asn Gly Pro Cys Gln His Arg
 130 135 140
 Pro Pro Tyr Tyr Gly Tyr Val Lys Arg Ala Thr Asn Arg Glu Pro Ser
 145 150 155 160
 Ala His Asp Tyr Trp Trp Ala Glu His Gln Lys Thr Cys Gly Gly Thr
 165 170 175
 Tyr Ile Lys Ile Lys Glu Pro Glu Asn Tyr Ser Lys Lys Gly Lys Gly
 180 185 190
 Lys Ala Lys Leu Gly Lys Glu Pro Val Leu Ala Ala Glu Asn Lys Asp
 195 200 205
 Lys Pro Asn Arg Gly Glu Ala Gln Leu Val Ile Pro Phe Ser Gly Lys
 210 215 220
 Gly Tyr Val Leu Gly Glu Thr Ser Asn Leu Pro Ser Pro Gly Lys Leu
 225 230 235 240
 Ile Thr Ser His Ala Ile Asn Lys Thr Gln Asp Leu Leu Asn Gln Asn
 245 250 255
 His Ser Ala Asn Ala Val Arg Pro Asn Ser Lys Ile Lys Val Lys Phe
 260 265 270
 Glu Gln Asn Gly Ser Ser Lys Asn Ser His Leu Val Ser Pro Ala Val
 275 280 285
 Ser Asn Ser His Gln Asn Val Leu Ser Asn Tyr Phe Pro Arg Val Ser
 290 295 300
 Phe Ala Asn Gln Lys Ala Phe Arg Gly Val Asn Gly Ser Pro Arg Ile
 305 310 315 320
 Ser Val Thr Val Gly Asn Ile Pro Lys Asn Ser Val Ser Ser Ser Ser
 325 330 335
 Gln Arg Arg Val Ser Ser Ser Lys Ile Ser Leu Arg Asn Ser Ser Lys

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<210> 3609
<211> 1286
<212> DNA
<213> Homo sapiens
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2768

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 1140
 cagctccaag ctaccctaac ccttcctttc ccaggtttct agaatagtgt ctggcatgta
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 1260
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 1286

<210> 3610
 <211> 268
 <212> PRT
 <213> Homo sapiens

<400> 3610
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 Glu Pro Gln Asp Leu Glu Ser Thr Asn Leu Leu Glu Ser Glu Ala Pro
 35 40 45
 Arg Asp Tyr Phe Leu Lys Phe Ala Tyr Ile Val Asp Leu Asp Ser Asp
 50 55 60
 Thr Ala Asp Lys Phe Leu Gln Leu Xaa Trp Asn Gln Arg Cys Gln Glu
 65 70 75 80
 Gly Ala Val Ser Tyr Gln Xaa Tyr Pro Leu Ser Pro Thr Arg Phe Thr
 85 90 95
 His Cys Glu Gln Val Leu Gly Glu Gly Ala Leu Asp Arg Gly Thr Tyr
 100 105 110
 Tyr Trp Glu Val Glu Ile Ile Glu Gly Trp Val Ser Met Gly Val Met
 115 120 125
 Ala Ala Asp Phe Ser Pro Gln Glu Pro Tyr Asp Arg Gly Arg Leu Gly
 130 135 140
 Arg Asn Ala His Ser Cys Cys Leu Gln Trp Asn Gly Arg Ser Phe Ser
 145 150 155 160
 Val Trp Phe His Gly Leu Glu Ala Pro Leu Pro His Pro Phe Ser Pro
 165 170 175
 Thr Val Gly Val Cys Leu Glu Tyr Ala Asp Arg Ala Leu Ala Phe Tyr
 180 185 190
 Ala Val Arg Asp Gly Lys Met Ser Leu Leu Arg Arg Leu Lys Ala Ser
 195 200 205
 Arg Pro Arg Arg Gly Gly Ile Pro Ala Ser Pro Ile Asp Pro Phe Gln
 210 215 220
 Ser Arg Leu Asp Ser His Phe Ala Gly Leu Phe Thr His Arg Leu Lys
 225 230 235 240
 Pro Ala Phe Phe Leu Glu Ser Val Asp Ala His Leu Gln Ile Gly Pro
 245 250 255
 Leu Lys Lys Ser Cys Ile Ser Val Leu Lys Arg Arg
 260 265

<210> 3611
 <211> 816

<212> DNA

<213> Homo sapiens

<400> 3611

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 120
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<210> 3612

<211> 272

<212> PRT

<213> Homo sapiens

<400> 3612

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			20					25					30		
Lys	Val	Lys	Pro	Arg	Lys	Ile	Phe	Gln	Trp	Arg	Gln	Leu	Glu	Asn	Leu
			35					40				45			
Tyr	Phe	Arg	Glu	Lys	Lys	Phe	Ser	Val	Glu	Val	His	Asp	Pro	Arg	Arg
	50					55					60				
Ala	Ser	Val	Thr	Arg	Arg	Thr	Phe	Gly	His	Ser	Gly	Ile	Ala	Val	His
65					70					75				80	
Thr	Trp	Tyr	Ala	Cys	Pro	Ala	Leu	Ile	Lys	Ser	Ile	Trp	Ala	Met	Ala
				85					90					95	
Ile	Ser	Gln	His	Gln	Phe	Tyr	Leu	Asp	Arg	Lys	Gln	Ser	Lys	Ser	Lys
			100					105					110		
Ile	His	Ala	Ala	Arg	Ser	Leu	Ser	Glu	Ile	Ala	Ile	Asp	Leu	Thr	Glu

115	120	125
Thr Gly Thr Leu Lys Thr Ser Lys Leu Ala Asn Met Gly Ser Lys Gly		
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Lys Ile Ile Ser Gly Ser Ser Gly Ser Leu Leu Ser Ser Gly Ser Gln		
145	150	155
Glu Ser Asp Ser Ser Gln Ser Ala Lys Lys Asp Met Leu Ala Ala Leu		
165	170	175
Lys Ser Arg Gln Glu Ala Leu Glu Glu Thr Leu Arg Gln Arg Leu Glu		
180	185	190
Glu Leu Lys Lys Leu Cys Leu Arg Glu Ala Glu Leu Thr Gly Lys Leu		
195	200	205
Pro Val Glu Tyr Pro Leu Asp Pro Gly Glu Glu Pro Pro Ile Val Arg		
210	215	220
Arg Arg Ile Gly Thr Ala Phe Lys Leu Asp Glu Gln Lys Ile Leu Pro		
225	230	235
Lys Gly Glu Glu Ala Glu Leu Glu Arg Leu Glu Arg Glu Phe Ala Ile		
245	250	255
Gln Ser Gln Ile Thr Glu Ala Ala Arg Arg Leu Ala Ser Asp Pro Asn		
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<210> 3613

<211> 659

<212> DNA

<213> Homo sapiens

<400> 3613

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 480
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 tacagtctt tcgaccattg ccctggagca cccgcacacg cgcacgcac tccggccgcg
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<210> 3614

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3614

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      20           25           30
Gly Leu Gly Ile Ser Leu Asn Ser Lys Arg Arg Lys Glu Glu Thr Phe
      35           40           45
Pro Thr Arg Cys Gly Cys Asp Ala Ser Gln Gly Pro Gln Gly His Cys
      50           55           60
Pro Arg Ala His Arg Pro Pro Leu Thr Ala Thr Gly Ala Trp Ile Arg
65           70           75           80
Ser Tyr Ile Val Gln Ser Phe Arg Pro Leu Pro Trp Ser Thr Arg Thr
      85           90           95
Arg Ala Arg Ile Ser Gly Arg Ala His Thr His Ser Tyr Thr Arg Thr
      100          105          110
Gln Thr Arg Ser Glu Lys Ser Pro Pro Pro
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<210> 3615

<211> 1388

<212> DNA

<213> Homo sapiens

<400> 3615

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180
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240
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300
cgacgccgca gcgagtgtgt cagtgagatg ctggacctag agaagcagtt ctcggagcta
360
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420
gctgagagag cccctgaata cacggagccc cttggggggc tgcagcggag cctcaagatt
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720
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780
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840
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900

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 1260
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<210> 3616

<211> 290

<212> PRT

<213> Homo sapiens

<400> 3616

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			20					25					30		
Glu	Arg	Ser	Gly	Ser	Gln	Thr	Glu	Ser	Glu	Glu	Glu	Ser	Ser	Glu	Met
			35				40					45			
Asp	Asp	Glu	Asp	Tyr	Glu	Arg	Arg	Arg	Ser	Glu	Cys	Val	Ser	Glu	Met
	50					55					60				
Leu	Asp	Leu	Glu	Lys	Gln	Phe	Ser	Glu	Leu	Lys	Glu	Lys	Leu	Phe	Arg
65					70					75				80	
Glu	Arg	Leu	Ser	Gln	Leu	Arg	Leu	Arg	Leu	Glu	Glu	Val	Gly	Ala	Glu
				85					90					95	
Arg	Ala	Pro	Glu	Tyr	Thr	Glu	Pro	Leu	Gly	Gly	Leu	Gln	Arg	Ser	Leu
			100					105					110		
Lys	Ile	Arg	Ile	Gln	Val	Ala	Gly	Ile	Tyr	Lys	Gly	Phe	Cys	Leu	Asp
		115					120					125			
Val	Ile	Arg	Asn	Lys	Tyr	Glu	Cys	Glu	Leu	Gln	Gly	Ala	Lys	Gln	His
	130					135					140				
Leu	Glu	Ser	Glu	Lys	Leu	Leu	Leu	Tyr	Asp	Thr	Leu	Gln	Gly	Glu	Leu
145					150					155				160	
Gln	Glu	Arg	Ile	Gln	Arg	Leu	Glu	Glu	Asp	Arg	Gln	Ser	Leu	Asp	Leu
				165					170				175		
Ser	Ser	Glu	Trp	Trp	Asp	Asp	Lys	Leu	His	Ala	Arg	Gly	Ser	Ser	Arg
			180				185						190		
Ser	Trp	Asp	Ser	Leu	Pro	Pro	Ser	Lys	Arg	Lys	Lys	Ala	Pro	Leu	Val
		195					200					205			
Ser	Gly	Pro	Tyr	Ile	Val	Tyr	Met	Leu	Gln	Glu	Ile	Gly	Ile	Leu	Glu
	210					215					220				
Asp	Trp	Thr	Ala	Ile	Lys	Lys	Ala	Arg	Ala	Ala	Val	Ser	Pro	Gln	Lys

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225          230          235          240
Arg Lys Ser Asp Asp Arg Arg Thr His Arg Pro Leu Arg Val Cys Pro
          245          250          255
Ala Arg Leu Leu Trp Cys Cys Trp Ala Leu Pro Leu His Leu Ala Leu
          260          265          270
Ala Trp Thr Pro Pro Leu Pro Ser Ser Arg Pro Ala Gln Leu Trp Pro
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Trp Ser
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<210> 3617
 <211> 804
 <212> DNA
 <213> Homo sapiens

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<400> 3617
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120
aggatgggat ggtagtagtg aaggacatag gatgggggta gagtgtggag actttttgaa
180
atagtataga tgaatgccct gaggggactg tgaacaagct ctgcccctct taggaaatca
240
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420
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<210> 3618
 <211> 148
 <212> PRT
 <213> Homo sapiens

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<400> 3618
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 35 40 45
 Ser Tyr Cys Pro Asp Cys Ala Leu Leu Val Ser Ala Asn Thr Gly
 50 55 60
 Ile Ala Gly Thr Thr Arg Glu His Leu Gly Leu Ala Leu Ala Leu Lys
 65 70 75 80
 Val Pro Phe Phe Ile Val Val Ser Lys Ile Asp Leu Cys Ala Lys Thr
 85 90 95
 Thr Val Glu Arg Thr Val Arg Gln Leu Glu Arg Val Leu Lys Gln Pro
 100 105 110
 Gly Cys His Lys Val Pro Met Leu Val Thr Ser Glu Asp Asp Ala Val
 115 120 125
 Thr Ala Ala Gln Gln Phe Ala Gln Ser Pro Asn Val Thr Pro Ile Phe
 130 135 140
 Thr Leu Ser Ser
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<210> 3619

<211> 948

<212> DNA

<213> Homo sapiens

<400> 3619

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948

<210> 3620

<211> 159

<212> PRT

<213> Homo sapiens

<400> 3620

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			20					25					30		
Ser	Ser	Ser	Ser	Met	Ala	Thr	Pro	Leu	Ser	Cys	Cys	Pro	Thr	Trp	Ala
		35					40					45			
Pro	Gly	Ala	Ser	Ser	Gln	Pro	Cys	Ser	Thr	Tyr	Pro	Pro	Trp	Arg	Thr
		50				55					60				
Thr	Thr	Leu	Ser	Thr	Ser	Thr	Ser	Trp	Ser	Cys	Leu	Leu	Leu	Pro	Cys
65					70					75				80	
Ala	Ser	Cys	Pro	Ser	Arg	Cys	Ser	Cys	Gln	Thr	Trp	Pro	Ser	Ser	Pro
				85					90					95	
Thr	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Cys	Thr	Ser	Phe	Met	Thr	Thr	Cys
			100					105					110		
Cys	His	Ser	Ser	Thr	Pro	Cys	Gly	Ser	Phe	Pro	Ala	Trp	Pro	Thr	Arg
		115					120					125			
His	Gly	Ser	Ser	Ser	Trp	Arg	Ala	Gly	Ala	Arg	Val	His	Thr	Ser	Thr
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<210> 3621

<211> 2934

<212> DNA

<213> Homo sapiens

<400> 3621

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180
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240
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<211> 228

<212> PRT

<213> Homo sapiens

<400> 3622

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			20					25					30		
Glu	Ser	Gly	Phe	Asp	Pro	Asn	Ile	Arg	Asp	Ser	Arg	Gly	Arg	Thr	Gly
		35					40					45			
Leu	His	Leu	Ala	Ala	Ala	Arg	Gly	Asn	Val	Asp	Ile	Cys	Gln	Leu	Leu
		50				55					60				
His	Lys	Phe	Gly	Ala	Asp	Leu	Leu	Ala	Thr	Asp	Tyr	Gln	Gly	Asn	Thr
65					70					75				80	
Ala	Leu	His	Leu	Cys	Gly	His	Val	Asp	Thr	Ile	Gln	Phe	Leu	Val	Ser
			85					90					95		
Asn	Gly	Leu	Lys	Ile	Asp	Ile	Cys	Asn	His	Gln	Gly	Ala	Thr	Pro	Leu
		100						105					110		
Val	Leu	Ala	Lys	Arg	Arg	Gly	Val	Asn	Lys	Asp	Val	Ile	Arg	Leu	Leu
		115					120					125			
Glu	Ser	Leu	Glu	Glu	Gln	Glu	Val	Lys	Gly	Phe	Asn	Arg	Gly	Thr	His
		130				135					140				
Ser	Lys	Leu	Glu	Thr	Met	Gln	Thr	Ala	Glu	Ser	Glu	Ser	Ala	Met	Glu
145					150					155				160	
Ser	His	Ser	Leu	Leu	Asn	Pro	Asn	Leu	Gln	Gln	Gly	Glu	Gly	Val	Leu

165 170 175
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 Glu Leu Val His
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<210> 3623
 <211> 586
 <212> DNA
 <213> Homo sapiens

<400> 3623
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<210> 3624
 <211> 159
 <212> PRT
 <213> Homo sapiens

<400> 3624
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 35 40 45
 Glu Lys Lys Arg Met Asp Lys Ala Ile Gly Tyr Ser Phe Ala Ile Val
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<210> 3626

<211> 551

<212> PRT

<213> Homo sapiens

<400> 3626

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Met	Glu	Tyr	Leu	Ile	Lys	Thr	Gly	Ser	Glu	Arg	Val	Ser	Gln	Gln	Cys
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Lys	Glu	Asn	Met	Tyr	Ala	Val	Gln	Thr	Leu	Lys	Asp	Phe	Gln	Tyr	Val
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Asp	Arg	Asp	Gly	Lys	Asp	Gln	Gly	Val	Asn	Val	Arg	Glu	Lys	Ala	Lys
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Gln	Leu	Val	Ala	Leu	Leu	Arg	Asp	Glu	Asp	Arg	Leu	Arg	Glu	Glu	Arg
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Ala	His	Ala	Leu	Lys	Thr	Lys	Glu	Lys	Leu	Ala	Gln	Thr	Ala	Thr	Ala
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Ser	Ser	Ala	Ala	Val	Gly	Ser	Gly	Pro	Pro	Pro	Glu	Ala	Glu	Gln	Ala
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Trp	Pro	Gln	Ser	Ser	Gly	Glu	Glu	Glu	Leu	Gln	Leu	Gln	Leu	Ala	Leu
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Ala	Met	Ser	Lys	Glu	Glu	Ala	Asp	Gln	Glu	Glu	Arg	Ile	Arg	Arg	Gly
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Asp	Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr
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Gly	Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr
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 Thr Pro Ala Ser Gly Asp Pro Trp Arg Pro Ala Ala Pro Ala Gly Pro
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 Ser Val Asp Pro Trp Gly Gly Thr Pro Ala Pro Ala Ala Gly Glu Gly
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 Pro Thr Pro Asp Pro Trp Gly Ser Ser Asp Gly Gly Val Pro Val Ser
 325 330 335
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 Pro Trp Gly Gly Ser Pro Ala Lys Pro Ser Thr Asn Gly Thr Thr Thr
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 Ala Gly Gly Phe Asp Thr Glu Pro Asp Glu Phe Ser Asp Phe Asp Arg
 370 375 380
 Leu Arg Thr Ala Leu Pro Thr Ser Gly Ser Ser Ala Gly Glu Leu Glu
 385 390 395 400
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 405 410 415
 Ser Gly Val Arg Gly Ser Leu Ala Glu Ala Val Gly Ser Pro Pro Pro
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 Ala Ala Thr Pro Thr Pro Thr Pro Pro Thr Arg Lys Thr Pro Glu Ser
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<210> 3627

<211> 1760

<212> DNA

<213> Homo sapiens

<400> 3627

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<210> 3628

<211> 440

<212> PRT

<213> Homo sapiens

<400> 3628

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 Thr Ser Leu Pro Thr Ser His Thr Tyr Leu Gly Ala Asp Met Glu Glu
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 Phe His Gly Arg Thr Leu His Asp Asp Asp Ser Cys Gln Val Ile Pro
 65 70 75 80
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 115 120 125
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 145 150 155 160
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 180 185 190
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 Lys Pro Val Ser Arg Glu Asp Gln Cys Ser Tyr Lys Trp Trp Gln Lys
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 275 280 285
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 Cys Lys Gln Cys Gln Glu Thr Glu Ile Thr Thr Lys Asn Glu Ile Phe
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 Tyr Val His Glu Thr Leu Thr Val Tyr Lys Ala Cys Asn Leu Asn Leu
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 Ile Gly Arg Pro Ser Thr Glu His Ser Trp Phe Pro Gly Tyr Ala Trp
 370 375 380
 Thr Val Ala Gln Cys Lys Ile Cys Ala Ser His Ile Gly Trp Lys Phe
 385 390 395 400
 Thr Ala Thr Lys Lys Asp Met Ser Pro Gln Lys Phe Trp Gly Leu Thr

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Pro Asp Lys Val Ile Leu Cys Leu					
	435		440		

<210> 3629
 <211> 695
 <212> DNA
 <213> Homo sapiens

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<210> 3630
 <211> 139
 <212> PRT
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<400> 3630
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 35 40 45
 Gly Met Arg Asp Ala Ala Val Ala Gly Leu Ala Ser Ser Leu Ser His
 50 55 60
 Leu Leu Val Leu Gly Leu Tyr Leu Gly Pro Gln Pro Asp Ser Arg Pro
 65 70 75 80
 Ala Leu Leu Pro Gln Leu Ala Ala Asn Ala Val Leu Phe Leu Cys Gly

	85		90		95
Asn Val Ala Gly Val Tyr His Lys Ala Leu Met Glu Arg Ala Leu Arg					
	100		105		110
Ala Thr Phe Arg Glu Ala Leu Ser Ser Leu His Ser Arg Arg Arg Leu					
	115		120		125
Asp Thr Glu Lys Lys His Gln Val Ser Arg Ala					
	130		135		

<210> 3631
 <211> 864
 <212> DNA
 <213> Homo sapiens

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 864

<210> 3632
 <211> 222
 <212> PRT
 <213> Homo sapiens

<400> 3632
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 35 40 45
 Arg Glu Tyr His Lys Trp Arg Thr Tyr Phe Lys Lys Arg Leu Gln Gln
 50 55 60
 His Lys Asp Glu Asp Leu Ser Ser Leu Val Gln Asp Asp Asp Met Leu
 65 70 75 80
 Tyr Trp His Lys His Gly Asp Gly Trp Lys Thr Pro Val Pro Met Glu
 85 90 95
 Glu Asp Pro Leu Leu Asp Thr Asp Met Leu Met Ser Glu Phe Ser Asp
 100 105 110
 Thr Leu Phe Ser Thr Leu Ser Ser His Gln Pro Val Ala Trp Pro Asn
 115 120 125
 Pro Arg Glu Ile Ala His Leu Gly Asn Ala Asp Met Ile Gln Pro Gly
 130 135 140
 Leu Ile Pro Leu Gln Pro Asn Leu Asp Phe Met Asp Thr Phe Glu Pro
 145 150 155 160
 Phe Gln Asp Leu Phe Ser Ser Ser Arg Ser Ile Phe Gly Ser Met Leu
 165 170 175
 Pro Ala Ser Ala Ser Ala Pro Val Pro Asp Pro Asn Asn Pro Pro Ala
 180 185 190
 Gln Glu Ser Ile Leu Pro Thr Thr Ala Leu Pro Thr Val Ser Leu Pro
 195 200 205
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<210> 3633

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 3633

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 420
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<210> 3634

<211> 277

<212> PRT

<213> Homo sapiens

<400> 3634

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		20						25					30		
Glu	Ile	Val	Tyr	Ser	Gly	Gly	Asp	Asp	Gly	Leu	Leu	Arg	Gly	Trp	Asp
		35					40						45		
Thr	Arg	Val	Pro	Gly	Lys	Phe	Leu	Phe	Thr	Ser	Xaa	Lys	Thr	His	His
	50				55						60				
Xaa	Gly	Val	Cys	Ser	Ile	Gln	Ser	Ser	Pro	His	Arg	Glu	His	Ile	Leu
65				70						75				80	
Ala	Thr	Gly	Ser	Tyr	Asp	Glu	His	Ile	Leu	Leu	Trp	Asp	Thr	Arg	Asn
			85					90					95		
Met	Lys	Gln	Pro	Leu	Ala	Asp	Thr	Pro	Val	Gln	Gly	Gly	Val	Trp	Arg
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Ile	Lys	Trp	His	Pro	Phe	His	His	His	Leu	Leu	Leu	Ala	Ala	Cys	Met

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Tyr Gly Ala Asp Trp Ser Trp Leu Leu Phe Arg Ser Leu Gln Arg Ala
      165      170      175
Pro Ser Trp Ser Phe Pro Ser Asn Leu Gly Thr Lys Thr Ala Asp Leu
      180      185      190
Lys Gly Ala Ser Glu Leu Pro Thr Pro Cys His Glu Cys Arg Glu Asp
      195      200      205
Asn Asp Gly Glu Gly His Ala Arg Pro Gln Ser Gly Met Lys Pro Leu
      210      215      220
Thr Glu Gly Met Arg Lys Asn Gly Thr Trp Leu Gln Ala Thr Ala Ala
225      230      235      240
Thr Thr Arg Asp Cys Gly Val Asn Pro Glu Glu Ala Asp Ser Ala Phe
      245      250      255
Ser Leu Leu Ala Thr Cys Ser Phe Tyr Asp His Ala Leu His Leu Trp
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Glu Trp Glu Gly Asn
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<210> 3635

<211> 835

<212> DNA

<213> Homo sapiens

<400> 3635

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<210> 3636

<211> 278

<212> PRT

<213> Homo sapiens

<400> 3636

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Ala Arg Leu Gln Gln Val Asp Pro Val Leu Leu Lys Asp Glu Pro Gln
35 40 45
Gln Thr Ala Ala Gln Met Gly Cys Ala Pro Ile Gln Pro Leu Ala Met
50 55 60
Pro Gln Ala Leu Pro Leu Ala Ala Gly Pro Leu Pro Pro Gly Ser Ile
65 70 75 80
Ala Asn Leu Thr Glu Leu Gln Gly Val Ile Val Gly Gln Pro Val Leu
85 90 95
Gly Gln Ala Gln Leu Ala Gly Leu Gly Gln Gly Ile Leu Thr Glu Thr
100 105 110
Gln Gln Gly Leu Met Val Ala Ser Pro Ala Gln Thr Leu Asn Asp Thr
115 120 125
Leu Asp Asp Ile Met Ala Ala Val Ser Gly Arg Ala Ser Ala Met Ser
130 135 140
Asn Thr Pro Thr His Ser Ile Ala Ala Ser Ile Ser Gln Pro Gln Thr
145 150 155 160
Pro Thr Pro Ser Pro Ile Ile Ser Pro Ser Ala Met Leu Pro Ile Tyr
165 170 175
Pro Ala Ile Asp Ile Asp Ala Gln Thr Glu Ser Asn His Asp Thr Ala
180 185 190
Leu Thr Leu Ala Cys Ala Gly Gly His Glu Glu Leu Val Gln Thr Leu
195 200 205
Leu Glu Arg Gly Ala Ser Ile Glu His Arg Asp Lys Lys Gly Phe Thr
210 215 220
Pro Leu Ile Leu Ala Ala Thr Ala Gly His Val Gly Val Val Glu Ile
225 230 235 240
Leu Leu Asp Asn Gly Ala Asp Ile Glu Ala Gln Ser Glu Arg Thr Lys
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<210> 3637

<211> 2128

<212> DNA

<213> Homo sapiens

<400> 3637

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<210> 3638

<211> 200

<212> PRT

<213> Homo sapiens

<400> 3638

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			20					25					30		
Leu	Trp	Gly	Ser	Gln	Leu	Gly	Lys	Pro	Val	Ser	Phe	Gly	Thr	Phe	Arg
		35					40					45			
Arg	Cys	Ser	Tyr	Pro	Val	His	Asp	Glu	Ser	Arg	Gln	Met	Met	Val	Met
	50					55					60				
Val	Glu	Glu	Cys	Gly	Arg	Tyr	Ala	Ser	Phe	Gln	Gly	Ile	Pro	Ser	Ala
65				70						75				80	
Glu	Trp	Arg	Ile	Cys	Thr	Ile	Val	Thr	Gly	Leu	Gly	Cys	Gly	Leu	Leu
			85					90					95		
Leu	Leu	Val	Ala	Leu	Thr	Ala	Leu	Met	Gly	Cys	Cys	Val	Ser	Asp	Leu
		100						105					110		
Ile	Ser	Arg	Thr	Val	Gly	Arg	Val	Ala	Gly	Gly	Ile	Gln	Phe	Leu	Gly
		115					120					125			
Gly	Leu	Leu	Ile	Gly	Ala	Gly	Cys	Ala	Leu	Tyr	Pro	Leu	Gly	Trp	Asp
	130					135					140				
Ser	Glu	Glu	Val	Arg	Gln	Thr	Cys	Gly	Tyr	Thr	Ser	Gly	Gln	Phe	Asp
145					150					155				160	
Leu	Gly	Lys	Cys	Glu	Ile	Gly	Trp	Ala	Tyr	Tyr	Cys	Thr	Gly	Ala	Gly
			165					170					175		
Ala	Thr	Ala	Ala	Met	Leu	Leu	Cys	Thr	Trp	Leu	Ala	Cys	Phe	Ser	Gly
		180						185					190		
Lys	Lys	Gln	Lys	His	Tyr	Pro	Tyr								
	195						200								

<210> 3639

<211> 726

<212> DNA

<213> Homo sapiens

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<210> 3640
 <211> 102
 <212> PRT
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 20 25 30
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 35 40 45
 Val Tyr Gly Asp Asp Thr Leu Arg Pro Cys Trp Cys Trp Lys Asn His
 50 55 60
 Leu Trp Gln Cys His Phe Leu Arg Lys Thr Tyr Gln Ser Phe Ala Met
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 Phe Thr Ile Asp Lys Lys Arg Asp Met Gln Ser Val Lys Cys Ile Thr
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 Leu Ile Ile Cys Leu His
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<210> 3641
 <211> 455
 <212> DNA
 <213> Homo sapiens

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 120
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 180
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<210> 3642
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3642
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 35 40 45
 Pro Leu Glu Arg Arg Ser Gly Arg Gly Ala Arg Asp Ala Arg Ala Leu
 50 55 60
 Thr Ser Trp Ala Pro Val Arg Gly Glu Val Arg Lys Lys Thr Pro Ser
 65 70 75 80
 Glu Val Thr Val Pro Thr Arg Val Asp Ser Pro Arg Pro Asp His Ala
 85 90 95
 Arg Arg Trp Pro Lys Gly Arg Gly Trp Gly Arg Gly Cys Ser Ala Pro
 100 105 110
 Ser Ser Arg Ala Ala Ser Leu Gln Val Phe Ala Leu Ala Arg Arg Ser
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 Pro Arg Glu Gln Phe Gly Thr Val Arg Ile Gly Phe Arg Glu Pro Ala
 130 135 140
 Phe Lys Thr Arg
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<210> 3643
 <211> 2243
 <212> DNA
 <213> Homo sapiens

<400> 3643
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<210> 3644
<211> 560
<212> PRT
<213> Homo sapiens
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<400> 3644																	
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			20					25					30				
Asp	Met	Ser	Asp	Arg	Arg	Ala	Ala	Val	Ile	Phe	Ala	Asp	Thr	Leu	Thr		
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	50					55					60						
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Ile	Lys	Gln	Arg	Asp	Tyr	His	Gln	Gln	Phe	Arg	His	Val	Gln	Asn	Asn		
		100					105						110				
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			165						170					175			
Lys	Leu	Leu	Asn	Asn	Cys	Leu	Leu	Ser	Cys	Thr	Met	Gln	Glu	Leu	Ile		
		180						185					190				
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	195					200						205					
Lys	Ala	Val	Ala	Leu	Asp	Thr	Tyr	Glu	Lys	Gly	Gln	Leu	Thr	Ser	Ser		

210	215	220
Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg Ala		
225	230	235
Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu Ala		
	245	250
Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys Leu		
	260	265
Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly Val		
	275	280
Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys Phe		
	290	295
Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe Leu		
305	310	315
Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr Leu		
	325	330
Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly Ile		
	340	345
Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp Leu		
	355	360
Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu Thr		
	370	375
Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile Asn		
385	390	395
Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Phe Asn Asp		
	405	410
Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu Glu		
	420	425
Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr Asp		
	435	440
Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu Lys		
	450	455
Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe Asp		
465	470	475
Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr Trp		
	485	490
Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile Leu		
	500	505
Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn Ser		
	515	520
Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val Leu		
	530	535
Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg Leu		
545	550	555
		560

<210> 3645

<211> 823

<212> DNA

<213> Homo sapiens

<400> 3645

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120

tcgggttgat ttcctcatct tctatttgat gggctaactg ctctatggaa ggaagatctt
 180
 cctcctcctt ggaggctaag atttggcgta actctttcct gagatcaata aaacgatcgt
 240
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 300
 catcgtaccg agcacacagg ttgttgagga gttgctcgtg ctggccaaac aagcggatgt
 360
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 420
 tgtaatatg aattcggaag taagtcccat ttttcgcact gccggttact agttctaaac
 480
 cataattagg ctgggccatt tgtacctcca agggagtgg aatggcaggc ttggcaatat
 540
 gcagataatg gtaagacca ggaagaatgc ccccttgaat cttggctccc ttgtacatgg
 600
 ggatgagccg gtcaagatta gctggtggct cggtcacagg ctcaagggtt ggatcaaaga
 660
 gatgtagcat agctgctgcc agctgaaagc caatttcttt ggaactgaag ttgctggtgg
 720
 gccattcat ttgagtagta tctattggag aatttggtga gggagccagc agctctgatg
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 823

<210> 3646

<211> 243

<212> PRT

<213> Homo sapiens

<400> 3646

Met	Asn	Gly	Pro	Thr	Ser	Asn	Phe	Ser	Ser	Lys	Glu	Ile	Gly	Phe	Gln
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Leu	Ala	Ala	Ala	Met	Leu	His	Leu	Phe	Asp	Pro	Thr	Leu	Glu	Pro	Val
			20					25					30		
Thr	Glu	Pro	Pro	Ala	Asn	Leu	Asp	Arg	Leu	Ile	Pro	Met	Tyr	Lys	Gly
			35				40						45		
Ala	Lys	Ile	Gln	Gly	Gly	Ile	Leu	Pro	Gly	Ser	Tyr	His	Tyr	Leu	His
			50				55					60			
Ile	Ala	Lys	Pro	Ala	Ile	Pro	Thr	Pro	Leu	Glu	Val	Gln	Met	Ala	Gln
					70					75				80	
Pro	Asn	Tyr	Gly	Leu	Glu	Leu	Val	Thr	Gly	Ser	Ala	Lys	Asn	Gly	Thr
				85					90					95	
Tyr	Phe	Arg	Ile	His	Ile	Asn	Lys	Tyr	Lys	Met	Val	Glu	Thr	Ile	Thr
			100					105					110		
Cys	Leu	Ser	Arg	Glu	Pro	Phe	Pro	Ala	Ser	Asn	Tyr	Ile	Arg	Leu	Phe
			115				120					125			
Gly	Gln	His	Glu	Gln	Leu	Leu	Asn	Asn	Leu	Cys	Ala	Arg	Tyr	Asp	Glu
			130				135				140				
Asn	Leu	Ile	Thr	Asp	Leu	Tyr	Ser	Tyr	Phe	Thr	Glu	Pro	Trp	Cys	Leu
					150					155				160	
Ala	Leu	Phe	His	Asp	Arg	Phe	Ile	Asp	Leu	Arg	Lys	Glu	Leu	Arg	Gln
				165					170					175	
Ile	Leu	Ala	Ser	Lys	Glu	Glu	Glu	Asp	Leu	Pro	Ser	Ile	Glu	Gln	Leu

	180		185		190										
Ala	His	Gln	Ile	Glu	Asp	Glu	Glu	Ile	Asn	Pro	Thr	Glu	Lys	Pro	Arg
	195					200						205			
Gln	Tyr	Leu	Lys	Arg	Val	Phe	Glu	Glu	Ser	Ile	Tyr	Lys	Thr	Leu	Val
	210					215					220				
Glu	Arg	Ser	Thr	Leu	Asp	Tyr	Leu	His	Tyr	Asn	Arg	Tyr	His	Leu	Pro
225					230					235				240	
Met	Tyr	Ala													

<210> 3647
 <211> 584
 <212> DNA
 <213> Homo sapiens

<400> 3647
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 120
 acgagggcac ctactcctgc cacctgcacc accattactg tggcctgcac gaacgccgcg
 180
 tcttccacct gacggtcgcc gaacccacg cggagccgcc cccccggggc tctccgggca
 240
 acggtccag ccacagcggc gccccaggcc caggtgaagg aggcctccct gggacccggg
 300
 aaggcgggag cccacccac cggggggtgc tctgcgccg ctgtcccttg cccgaggccc
 360
 gcggatccca gcgggnnggc cgtggcccgg gtcggggcgc aggtcttget ggtacctgac
 420
 gccgtccga ccccggttc cccgcagacc ccacactggc gcgcggccac aacgtcatca
 480
 atgtcatcgt ccccgagagc cgagcccact tctccagca gctgggctac gtgctggcca
 540
 cgctgtgtgt cttcatcctg ctactggtca ctgtcctct gcc
 584

<210> 3648
 <211> 63
 <212> PRT
 <213> Homo sapiens

Thr	Arg	Arg	Ala	Ser	Ala	Ala	Pro	Thr	Gly	Pro	Phe	Phe	Cys	Ala	Thr
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Ala	Trp	Leu	Trp	Ala	Arg	Met	Pro	Leu	Ser	Ala	Val	Thr	Ser	His	Cys
		20					25					30			
Val	Ser	Ser	Arg	Trp	Arg	Ser	Pro	Thr	Arg	Ala	Pro	Thr	Pro	Ala	Thr
	35					40					45				
Cys	Thr	Thr	Ile	Thr	Val	Ala	Cys	Thr	Asn	Ala	Ala	Ser	Ser	Thr	
50					55						60				

<210> 3649
 <211> 648

<212> DNA

<213> Homo sapiens

<400> 3649

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120
tgctcattgt ttgctgtgct cccctttttt tttcaggttg ctatttctgc agatgtcaaa
180
gaagttctgt taactgatgg gaatgaaaag gccatcagaa atgtgcaaga catcatcaca
240
aggaatcaga aggctggtgt gtttaagacc cagaaaatat caagctgcgt tttacgatgg
300
gataatgaga cagatgtctc tcaactggaa ggacattttg acattgttat gtgtgctgac
360
tgccgttttc tggaccagta cagagccagc cttgttgatg caataaagag attactccag
420
cccaggggga aagcgatggg atttgcccca cgccgagggg atactttaaa ccagttttgc
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540
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600
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648

<210> 3650

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3650

Met	Ile	Leu	Lys	Ala	Cys	His	Ser	Cys	Phe	His	Phe	His	Thr	Asp	Lys
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His	Ile	Cys	Ser	Leu	Phe	Ala	Val	Leu	Pro	Phe	Phe	Phe	Gln	Val	Ala
			20					25					30		
Ile	Ser	Ala	Asp	Val	Lys	Glu	Val	Leu	Leu	Thr	Asp	Gly	Asn	Glu	Lys
		35				40						45			
Ala	Ile	Arg	Asn	Val	Gln	Asp	Ile	Ile	Thr	Arg	Asn	Gln	Lys	Ala	Gly
		50				55					60				
Val	Phe	Lys	Thr	Gln	Lys	Ile	Ser	Ser	Cys	Val	Leu	Arg	Trp	Asp	Asn
65				70					75					80	
Glu	Thr	Asp	Val	Ser	Gln	Leu	Glu	Gly	His	Phe	Asp	Ile	Val	Met	Cys
			85					90					95		
Ala	Asp	Cys	Leu	Phe	Leu	Asp	Gln	Tyr	Arg	Ala	Ser	Leu	Val	Asp	Ala
			100					105					110		
Ile	Lys	Arg	Leu	Leu	Gln	Pro	Arg	Gly	Lys	Ala	Met	Val	Phe	Ala	Pro
		115				120						125			
Arg	Arg	Gly	Asn	Thr	Leu	Asn	Gln	Phe	Cys	Asn	Leu	Ala	Glu	Lys	Ala
		130				135					140				
Gly	Phe	Cys	Ile	Gln	Arg	His	Glu	Asn	Tyr	Asp	Glu	His	Ile	Ser	Asn
145				150					155					160	
Phe	His	Ser	Lys	Leu	Lys	Lys	Glu	Asn	Pro	Asp	Ile	Tyr	Glu	Glu	Asn

165 170 175
 Leu His Tyr Pro Pro Leu Leu Ile Leu Thr Lys His Gly
 180 185

<210> 3651

<211> 2469

<212> DNA

<213> Homo sapiens

<400> 3651

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 120
 tttgaagggg ccactgtggt catcctgaac atgcccaagg gaacagagtt tgggattgac
 180
 tataactcct gggaggtcgg gcccaagttc cggggcggtga agatgatccc tccaggcatc
 240
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 300
 ggtttcttcc ttagcctgca ccagcggggg ctgacagtgc tgcgctggag cacactcagg
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 420
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 480
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 540
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 600
 cagaatctac cccgctgtgg cattgagtgc aaaagctacc aagagggcct ggcccggcta
 660
 ccagagatga agcccagagc cgggacagag atccgcttct cagagctgcc cacgcagatg
 720
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 780
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 840
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 900
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 1200
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 1260
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 1320

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 1680
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 1920
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 2340
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 2460
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 2469

<210> 3652

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3652

Met	Ala	Ala	Val	Gln	Met	Asp	Pro	Glu	Leu	Ala	Lys	Arg	Leu	Phe	Phe
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Glu	Gly	Ala	Thr	Val	Val	Ile	Leu	Asn	Met	Pro	Lys	Gly	Thr	Glu	Phe
			20					25					30		
Gly	Ile	Asp	Tyr	Asn	Ser	Trp	Glu	Val	Gly	Pro	Lys	Phe	Arg	Gly	Val
		35					40					45			
Lys	Met	Ile	Pro	Pro	Gly	Ile	His	Phe	Leu	His	Tyr	Ser	Ser	Val	Asp

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      50              55              60
Lys Ala Asn Pro Lys Glu Val Gly Pro Arg Met Gly Phe Phe Leu Ser
65              70              75              80
Leu His Gln Arg Gly Leu Thr Val Leu Arg Trp Ser Thr Leu Arg Glu
      85              90              95
Glu Val Asp Leu Ser Pro Ala Pro Glu Ser Glu Val Glu Ala Met Arg
      100              105              110
Ala Asn Leu Gln Glu Leu Asp Gln Phe Leu Gly Pro Tyr Pro Tyr Ala
      115              120              125
Thr Leu Lys Lys Trp Ile Ser Leu Thr Asn Phe Ile Ser Glu Ala Thr
      130              135              140
Val Glu Lys Leu Gln Pro Glu Asn Arg Gln Ile Cys Ala Phe Ser Asp
145              150              155              160
Val Leu Pro Val Leu Ser Met Lys His Thr Lys Asp Arg Val Gly Gln
      165              170              175
Asn Leu Pro Arg Cys Gly Ile Glu Cys Lys Ser Tyr Gln Glu Gly Leu
      180              185              190
Ala Arg Leu Pro Glu Met Lys Pro Arg Ala Gly Thr Glu Ile Arg Phe
      195              200              205
Ser Glu Leu Pro Thr Gln Met Phe Pro Glu Gly Ala Thr Pro Ala Glu
      210              215              220
Ile Thr Lys His Ser Met Asp Leu Ser Tyr Ala Leu Glu Thr Val Leu
225              230              235              240
Ile Lys Gln Phe Pro Ser Ser Pro Gln Asp Val Leu Gly Glu Leu Gln
      245              250              255
Phe Ala Phe Val Cys Phe Leu Leu Gly Asn Val Tyr Glu Ala Phe Glu
      260              265              270
His Trp Lys Arg Leu Leu His Leu Leu Cys Arg Ser Glu Ala Ala Met
      275              280              285
Met Lys His His Thr Leu Tyr Ile Asn Leu Met Ser Ile Leu Tyr His
      290              295              300
Gln Leu Gly Glu Ile Pro Ala Asp Phe Phe Val Asp Ile Val Ser Gln
305              310              315              320
Asp Asn Phe Leu Thr Ser Thr Leu Gln Val Phe Phe Ser Ser Ala Cys
      325              330              335
Ser Ile Ala Val Asp Ala Thr Leu Arg Lys Lys Ala Glu Lys Phe Gln
      340              345              350
Ala His Leu Thr Lys Lys Phe Arg Trp Asp Phe Ala Ala Glu Pro Glu
      355              360              365
Asp Cys Ala Pro Val Val Val Glu Leu Pro Glu Gly Ile Glu Met Gly
      370              375              380

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<210> 3653

<211> 283

<212> DNA

<213> Homo sapiens

<400> 3653

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120

tcttctccac tggagatgct ccttcagctc agcaggacgc tagctcgga ctcagactgc

180

acattttttgc ggattgggag gagggccgac gccgtggcgc gatagtctct ggagctgcct
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 283

<210> 3654
 <211> 88
 <212> PRT
 <213> Homo sapiens

<400> 3654
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 Gln Ala Val Phe Ser Thr Gly Asp Ala Pro Ser Ala Gln Gln Asp Ala
 35 40 45
 Ser Ser Glu Leu Arg Leu His Ile Phe Ala Asp Trp Glu Glu Gly Arg
 50 55 60
 Arg Arg Gly Arg Ile Val Ser Gly Ala Ala Phe Trp Gly Cys Leu Pro
 65 70 75 80
 Val Gly Ile Phe Ser Thr Pro Arg
 85

<210> 3655
 <211> 3477
 <212> DNA
 <213> Homo sapiens

<400> 3655
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 aaaaacaaat aaaataaata aataaataaa tacactaaag ccttattagc caggcgtgat
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1680
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2340

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 aaggtgggtca tcggcatgga cgtagcggcc tccgagttct tcaggtctgg gaagtatgac
 2460
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 2700
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 3240
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 3300
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 3360
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 3477

<210> 3656

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3656

Met	Ala	Ser	Leu	Lys	Glu	Leu	Ala	Pro	Thr	Gly	Arg	Ile	Met	Asn	Ser
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Cys	Met	Ala	Ser	Leu	Phe	Pro	Ala	Trp	Glu	Pro	Pro	Leu	Ile	Thr	Leu
			20					25				30			
Lys	Ala	Gly	Thr	Gly	Ser	Met	Arg	Ser	Gly	Phe	Pro	Ala	Lys	Ser	Ala
		35					40				45				
Met	Trp	Arg	Tyr	Arg	Gly	Thr	Pro	Phe	Ser	Lys	Ala	Val	Glu	His	Ile
	50					55				60					
Asn	Lys	Thr	Ile	Ala	Pro	Ala	Leu	Val	Ser	Lys	Lys	Leu	Asn	Val	Thr

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65          70          75          80
Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu Met Asp Gly Thr Glu
      85          90          95
Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu Gly Val Ser Leu Ala
      100          105          110
Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val Pro Leu Tyr Arg His
      115          120          125
Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile Leu Pro Val Pro Ala
      130          135          140
Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly Asn Lys Leu Ala Met
      145          150          155          160
Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala Asn Phe Arg Glu Ala
      165          170          175
Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu Lys Asn Val Ile Lys
      180          185          190
Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly Asp Glu Gly Gly Phe
      195          200          205
Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu Glu Leu Lys Thr
      210          215          220
Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val Val Ile Gly Met Asp
      225          230          235          240
Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys Tyr Asp Leu Asp Phe
      245          250          255
Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser Pro Asp Gln Leu Ala
      260          265          270
Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro Val Val Ser Ile Glu
      275          280          285
Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp Gln Lys Phe Thr Ala
      290          295          300
Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu Thr Val Thr Asn Pro
      305          310          315          320
Lys Arg Ile Ala Gln Ala Val Asn Glu Lys Ser Cys Asn Cys Leu Leu
      325          330          335
Leu Lys Val Asn Gln Ile Gly Ser Val Thr Glu Ser Leu Gln Ala Cys
      340          345          350
Lys Leu Ala Gln Ala Asn Gly Trp Gly Val Met Val Ser His Arg Ser
      355          360          365
Gly Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu Val Val Gly Leu Cys
      370          375          380
Thr Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser Glu Arg Leu Ala
      385          390          395          400
Lys Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Ser Lys Ala
      405          410          415
Lys Phe Ala Gly Arg Asn Phe Arg Asn Pro Leu Ala Lys
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<210> 3657

<211> 337

<212> DNA

<213> Homo sapiens

<400> 3657

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 180
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 240
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<210> 3658

<211> 99

<212> PRT

<213> Homo sapiens

<400> 3658

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Leu	Arg	Val	His	Phe	Arg	Leu	Lys	Ala	Tyr	Thr	Cys	Arg	Cys	Val	Thr
			20					25					30		
Cys	Ser	Phe	Ser	Ala	Gln	Gly	Val	His	Val	Gln	Val	Cys	Tyr	Val	Phe
		35				40						45			
Ile	Phe	Gly	Ser	Arg	Leu	Thr	Arg	Ala	Gly	Val	Pro	His	Val	His	Phe
		50				55					60				
Arg	Leu	Lys	Ala	Tyr	Met	Cys	Arg	Cys	Val	Thr	Cys	Ser	Leu	Ser	Ala
65					70					75				80	
Gln	Arg	Val	His	Val	Gln	Val	Cys	His	Met	Phe	Ile	Phe	Gly	Ser	Arg
			85						90					95	
Arg	Thr	Arg													

<210> 3659

<211> 1025

<212> DNA

<213> Homo sapiens

<400> 3659

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 120
 gttgaaaata agacggccca gatattaaat cttcagcaac atttatctgc ccttgaaaaa
 180
 gatattaaac acaatgagga acttcttaaa aggtgccaac tacattataa agaactaaag
 240
 atgaaaaata gaaaaaatat ttctgaaatt cgggaaacttg agaacataga agaacaccag
 300
 tctgtagata ttgcaacttt ggaagatgaa gctcaggaaa ataaaagcaa aatgaaaatg
 360
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 420
 gaagcagaaa ataagtatga tgcaattaaa ttcaaaatta atcaactatc ggagctagca
 480

gaccactta aggatgaatt aaaccttgct gattctgaag tggataacca aaaacgaggg
 540
 aaacgacatt atgaaaaaaaa acaaaaagaa cacttggata ccttaaataa aaagaaacga
 600
 gaactggata tgaaagagaa agaactagag gagaaaatgt cacaagcaag acaaactctgc
 660
 ccagagcgta tagaagtaga aaaatctgca tcaattctgg acaaagaaat taatcgatta
 720
 aggcagaaga tacaggcaga acatgctagt catggagatc gagaggaaat aatgaggcag
 780
 taccaagaag caagagagac ctatcttgat ctggatagta aagtgaggac tttaaaaaag
 840
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 900
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 1025

<210> 3660

<211> 341

<212> PRT

<213> Homo sapiens

<400> 3660

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Ser	Ser	Glu	Asn	Thr	Arg	Pro	Lys	Phe	Leu	Ser	Arg	Asp	Val	Asp	Ser
			20					25					30		
Glu	Ile	Ser	Asp	Leu	Glu	Asn	Glu	Val	Glu	Asn	Lys	Thr	Ala	Gln	Ile
		35				40						45			
Leu	Asn	Leu	Gln	Gln	His	Leu	Ser	Ala	Leu	Glu	Lys	Asp	Ile	Lys	His
	50					55					60				
Asn	Glu	Glu	Leu	Leu	Lys	Arg	Cys	Gln	Leu	His	Tyr	Lys	Glu	Leu	Lys
65					70				75					80	
Met	Lys	Ile	Arg	Lys	Asn	Ile	Ser	Glu	Ile	Arg	Glu	Leu	Glu	Asn	Ile
			85						90					95	
Glu	Glu	His	Gln	Ser	Val	Asp	Ile	Ala	Thr	Leu	Glu	Asp	Glu	Ala	Gln
			100					105					110		
Glu	Asn	Lys	Ser	Lys	Met	Lys	Met	Val	Glu	Glu	His	Met	Glu	Gln	Gln
		115				120						125			
Lys	Glu	Asn	Met	Glu	His	Leu	Lys	Ser	Leu	Lys	Ile	Glu	Ala	Glu	Asn
	130					135					140				
Lys	Tyr	Asp	Ala	Ile	Lys	Phe	Lys	Ile	Asn	Gln	Leu	Ser	Glu	Leu	Ala
145				150					155					160	
Asp	Pro	Leu	Lys	Asp	Glu	Leu	Asn	Leu	Ala	Asp	Ser	Glu	Val	Asp	Asn
			165					170						175	
Gln	Lys	Arg	Gly	Lys	Arg	His	Tyr	Glu	Lys	Lys	Gln	Lys	Glu	His	Leu
		180						185					190		
Asp	Thr	Leu	Asn	Lys	Lys	Lys	Arg	Glu	Leu	Asp	Met	Lys	Glu	Lys	Glu
	195					200					205				
Leu	Glu	Glu	Lys	Met	Ser	Gln	Ala	Arg	Gln	Ile	Cys	Pro	Glu	Arg	Ile

210	215	220
Glu Val Glu Lys Ser Ala Ser Ile Leu Asp Lys Glu Ile Asn Arg Leu		
225	230	235
Arg Gln Lys Ile Gln Ala Glu His Ala Ser His Gly Asp Arg Glu Glu		240
	245	250
Ile Met Arg Gln Tyr Gln Glu Ala Arg Glu Thr Tyr Leu Asp Leu Asp		255
	260	265
Ser Lys Val Arg Thr Leu Lys Lys Phe Ile Lys Leu Leu Gly Glu Ile		270
	275	280
Met Glu His Arg Phe Lys Thr Tyr Gln Gln Phe Arg Arg Cys Leu Thr		285
	290	295
Leu Arg Cys Lys Leu Tyr Phe Asp Asn Leu Leu Ser Gln Arg Ala Tyr		300
305	310	315
Cys Gly Lys Met Asn Phe Asp His Lys Asn Glu Thr Leu Ser Ile Ser		320
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Val Gln Pro Gly Glu		335
	340	

<210> 3661

<211> 1117

<212> DNA

<213> Homo sapiens

<400> 3661

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 120
 ttagatccta gaatgtgcct tttcacaatg gcttcgtttc caattttcac tgttatttgg
 180
 caaaggggtg caacattact atttgtggag gttcccgga gagcagggtt tgcaatgtag
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 300
 tcagcaacat agtttgactc ctccgtatt tctccctgg tatgtgatgt agttttcttt
 360
 ttctccttaa tgcttttggg tctgcttgca aacctacca ctttatctgg ctccgggctta
 420
 ctgtcatctt tcagggactg actgacagct gggctctgaa aggtctctgt gttgctgctg
 480
 gtcattggcag caatggcatt gctgtgcatg atcaccgatg aaaactggct gctgtgtaca
 540
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 600
 ctcaaagata aaacaggtag atcccctgcc cggagggtcag aactgacagc attttcagt
 660
 gaagaaactg acacctcagt tgaataaaag ttattgtcaa gatccatttt caatgcctcc
 720
 tctccctatt tggtagcctc tgcattttgt acattggcag aagtgggtat gtcctgacat
 780
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 840
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 900

tcattcattt gactgttttc tcgtgcattt tcataggaag aatttcggta gctcttataa
 960
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 1020
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 1080
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 1117

<210> 3662

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3662

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Asp	His	Arg	Leu	Ser	Ile	Ser	Lys	Lys	Thr	Ala	Asn	Gly	Gly	Leu	Lys
			20					25					30		
Pro	Ser	Val	Tyr	Pro	Tyr	Lys	Leu	Tyr	Arg	Leu	Leu	Pro	Met	Lys	Cys
			35				40					45			
Lys	Arg	Ala	Pro	Tyr	Lys	Ser	Tyr	Arg	Asn	Ser	Ser	Tyr	Glu	Asn	Ala
			50				55				60				
Arg	Glu	Asn	Ser	Gln	Met	Asn	Glu	Ser	Ala	Pro	Gly	Thr	Tyr	Val	Val
65					70					75				80	
Gln	Asn	Pro	His	Ser	Ser	Glu	Leu	Pro	Thr	Leu	Asn	Phe	Gln	Asp	Thr
				85					90					95	
Val	Asn	Thr	Leu	Thr	Asn	Ser	Pro	Ala	Ile	Pro	Leu	Glu	Thr	Ser	Ala
			100					105					110		
Cys	Gln	Asp	Ile	Pro	Thr	Ser	Ala	Asn	Val	Gln	Asn	Ala	Glu	Gly	Thr
			115				120					125			
Lys	Trp	Gly	Glu	Glu	Ala	Leu	Lys	Met	Asp	Leu	Asp	Asn	Asn	Phe	Tyr
			130				135				140				
Ser	Thr	Glu	Val	Ser	Val	Ser	Ser	Thr	Glu	Asn	Ala	Val	Ser	Ser	Asp
145					150					155				160	
Leu	Arg	Ala	Gly	Asp	Val	Pro	Val	Leu	Ser	Leu	Ser	Asn	Ser	Ser	Glu
				165					170					175	
Asn	Ala	Ala	Ser	Val	Ile	Ser	Tyr	Ser	Gly	Ser	Ala	Pro	Ser	Val	Ile
			180					185					190		
Val	His	Ser	Ser	Gln	Phe	Ser	Ser	Val	Ile	Met	His	Ser	Asn	Ala	Ile
			195					200					205		
Ala	Ala	Met	Thr	Ser	Ser	Asn	His	Arg	Ala	Phe	Ser	Asp	Pro	Ala	Val
			210				215					220			
Ser	Gln	Ser	Leu	Lys	Asp	Asp	Ser	Lys	Pro	Glu	Pro	Asp	Lys	Val	Gly
225					230					235				240	
Arg	Phe	Ala	Ser	Arg	Pro	Lys	Ser	Ile	Lys	Glu	Lys	Lys	Lys	Thr	Thr
				245					250					255	
Ser	His	Thr	Arg	Gly	Glu	Ile	Pro	Glu	Glu	Ser	Asn	Tyr	Val	Ala	Asp
			260					265					270		
Pro	Gly	Gly	Ser	Leu	Ser	Lys	Thr	Thr	Asn	Ile	Ala	Glu	Glu	Thr	Ser
			275				280					285			
Lys	Ile	Glu	Thr	Tyr	Ile	Ala	Lys	Pro	Ala	Leu	Pro	Gly	Thr	Ser	Thr
			290				295				300				
Asn	Ser	Asn	Val	Ala	Pro	Leu	Cys	Gln	Ile	Thr	Val	Lys	Ile	Gly	Asn

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305          310          315          320
Glu Ala Ile Val Lys Arg His Ile Leu Gly Ser Lys Leu Phe Tyr Lys
          325          330          335
Arg Gly Arg Arg Pro Lys Tyr Gln Met Gln Glu Glu Leu Leu Pro Gln
          340          345          350
Gly Asn Asp Pro Glu Pro Ser Gly Asp Ser Pro Leu Gly Leu Cys Gln
          355          360          365
Ser Glu Cys
          370

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<210> 3663
 <211> 481
 <212> DNA
 <213> Homo sapiens

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<400> 3663
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120
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480
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481

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<210> 3664
 <211> 138
 <212> PRT
 <213> Homo sapiens

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<400> 3664
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20          25          30
Met Ser Asp Asn Val Asp Arg Cys Phe Glu Thr Cys Pro Pro Arg Thr
35          40          45
Phe Leu Pro Ala Leu Tyr Lys Ile Phe Leu Asp Glu Ser Ala Pro Asp
50          55          60
Asn Val Leu Glu Val Thr Ala Arg Ala Ile Thr Tyr Tyr Leu Asp Val
65          70          75          80
Ser Ala Glu Cys Thr Arg Arg Ile Val Gly Val Asp Gly Ala Ile Lys
85          90          95
Ala Leu Cys Asn Arg Leu Val Val Val Glu Leu Asn Asn Arg Thr Ser

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	100		105		110										
Arg	Asp	Leu	Ala	Glu	Gln	Cys	Val	Lys	Val	Ser	Ile	Thr	Tyr	Trp	Leu
	115						120					125			
Ile	Thr	Tyr	Phe	Ser	Gln	Thr	Ser	Gln	Gly						
	130						135								

<210> 3665

<211> 6633

<212> DNA

<213> Homo sapiens

<400> 3665

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300
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360
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420
gagaccgagt gcttccgaga ggagcgcat gtgctggtga acggcgactg ccagtggatc
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600
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1200
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1260

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2040
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<212> PRT

<213> Homo sapiens

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Lys Lys His Ala Phe Phe Glu Gly Leu Asn Trp Glu Asn Ile Arg Asn
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Cys	Gly	Phe	Ile	Leu	Glu	Pro	Arg	Leu	Leu	Ile	Gln	His	Arg	Lys	Gly
	130					135					140				
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			165						170					175	
Gly	Ile	Glu	Glu	Ala	Asp	Ser	Phe	Phe	Lys	Val	Leu	Cys	Gly	Lys	Asp
		180						185					190		
Glu	Asp	Thr	Ile	Pro	Gln	Leu	Leu	Ile	Asp	Phe	Trp	Glu	Ala	Gln	Leu
		195				200						205			
Val	Ala	Cys	Leu	Pro	Asp	Val	Val	Leu	Gln	Glu	Leu	Phe	Phe	Lys	Leu
	210					215						220			
Thr	Ser	Gln	Tyr	Ile	Trp	Arg	Leu	Ser	Lys	Arg	Gln	Pro	Pro	Asp	Thr
225				230						235				240	
Thr	Pro	Leu	Arg	Thr	Ser	Glu	Asp	Leu	Ile	Asn	Ala	Cys	Ser	His	Tyr
			245					250						255	
Gly	Leu	Ile	Tyr	Pro	Trp	Val	His	Val	Val	Ile	Ser	Ser	Asp	Ser	Leu

260 265 270
 Ala Asp Lys Asn Tyr Thr Glu Asp Leu Ser Lys Leu Gln Ser Leu Ile
 275 280 285
 Cys Gly Pro Ser Phe Asp Ile Ala Ser Ile Ile Pro Phe Leu Glu Pro
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 Leu Ser Glu Asp Thr Ile Ala Gly Leu Ser Val His Val Leu Cys Arg
 305 310 315 320
 Thr Arg Leu Lys Glu Tyr Glu Gln Cys Ile Asp Ile Leu Leu Glu Arg
 325 330 335
 Cys Pro Glu Ala Val Ile Pro Tyr Ala Asn His Glu Leu Lys Glu Glu
 340 345 350
 Asn Arg Thr Leu Trp Trp Lys Lys Leu Leu Pro Glu Leu Cys Gln Arg
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<210> 3671

<211> 828

<212> DNA

<213> Homo sapiens

<400> 3671

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 gatggaaaga taagcaagaa gagttaattt ctaatcaata tgataaaaag gtcagagagc
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 300
 agagaagggg gaattcattc tagaaagatc agacaatgtg tgggaagggc agagtctgaa
 360
 aagagcatgc cccatttggg gaagcatcaa gaagcccacg cgttagaagc accggcccca
 420
 tgagacaaag acacagctag agagattgac taggccatgt cggaatgtcc tcttatttta
 480
 tacatacata agcatataga tacatatagc caaagttacc tttttaatga tcttttttac
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 720
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<210> 3672

<211> 124
 <212> PRT
 <213> Homo sapiens

<400> 3672

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		20						25					30		
Gly	Gly	Arg	Met	Val	Thr	Tyr	Glu	His	Leu	Arg	Glu	Val	Val	Phe	Gly
		35					40					45			
Lys	Ser	Glu	Asp	Glu	His	Tyr	Pro	Leu	Trp	Lys	Ser	Val	Ile	Gly	Gly
	50					55				60					
Met	Met	Ala	Gly	Val	Ile	Gly	Gln	Phe	Leu	Ala	Asn	Pro	Thr	Asp	Leu
65					70				75					80	
Val	Lys	Val	Gln	Met	Gln	Met	Glu	Gly	Lys	Arg	Lys	Leu	Glu	Gly	Lys
			85						90					95	
Pro	Leu	Arg	Phe	Arg	Gly	Val	His	His	Ala	Phe	Ala	Lys	Ile	Leu	Ala
			100					105					110		
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<210> 3673
 <211> 1052
 <212> DNA
 <213> Homo sapiens

<400> 3673

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 420
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 480
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 600
 ggagaagaag atacaccaat ggggcttcta ctaggtggcg tcaagtcaac atatatgttt
 660
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<210> 3674

<211> 263

<212> PRT

<213> Homo sapiens

<400> 3674

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			20					25					30		
Ala	Cys	Ile	Lys	Ser	Phe	Ser	Asp	Glu	Gln	Trp	Tyr	Ser	Phe	Asn	Asp
	35						40					45			
Gln	His	Val	Ser	Arg	Ile	Thr	Gln	Glu	Asp	Ile	Lys	Lys	Thr	His	Gly
	50					55					60				
Gly	Ser	Ser	Gly	Ser	Arg	Gly	Tyr	Tyr	Ser	Ser	Ala	Phe	Ala	Ser	Ser
65					70					75				80	
Thr	Asn	Ala	Tyr	Met	Leu	Ile	Tyr	Arg	Leu	Lys	Asp	Pro	Ala	Arg	Asn
				85					90					95	
Ala	Lys	Phe	Leu	Glu	Val	Asp	Glu	Tyr	Pro	Glu	His	Ile	Lys	Asn	Leu
			100					105					110		
Val	Gln	Lys	Glu	Arg	Glu	Leu	Glu	Glu	Gln	Glu	Lys	Arg	Gln	Arg	Glu
	115						120					125			
Ile	Glu	Arg	Asn	Thr	Cys	Lys	Ile	Lys	Leu	Phe	Cys	Leu	His	Pro	Thr
	130					135					140				
Lys	Gln	Val	Met	Met	Glu	Asn	Lys	Leu	Glu	Val	His	Lys	Asp	Lys	Thr
145					150					155				160	
Leu	Lys	Glu	Ala	Val	Glu	Met	Ala	Tyr	Lys	Met	Met	Asp	Leu	Glu	Glu
				165					170					175	
Val	Ile	Pro	Leu	Asp	Cys	Cys	Arg	Leu	Val	Lys	Tyr	Asp	Glu	Phe	His
			180					185					190		
Asp	Tyr	Leu	Glu	Arg	Ser	Tyr	Glu	Gly	Glu	Glu	Asp	Thr	Pro	Met	Gly
	195						200					205			
Leu	Leu	Leu	Gly	Gly	Val	Lys	Ser	Thr	Tyr	Met	Phe	Asp	Leu	Leu	Leu
	210					215						220			
Glu	Thr	Arg	Lys	Pro	Asp	Gln	Val	Phe	Gln	Ser	Tyr	Lys	Pro	Gly	Gly
225					230					235				240	
Glu	Pro	Phe	Tyr	Thr	Ile	Phe	Ser	Trp	Ser	Val	Leu	Arg	Ile	Phe	Leu
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Arg	Lys	Val	Phe	Phe	Leu	Leu									
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<210> 3675

<211> 837

<212> DNA

<213> Homo sapiens

<400> 3675

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240
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<210> 3676

<211> 154

<212> PRT

<213> Homo sapiens

<400> 3676

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20           25           30
Gln Glu Gly Gly Gly Ile Ser Arg Val Gly Val Cys Lys Val Met His
35           40           45
Pro Glu Gly Asn Gly Arg Ser Gly Phe Leu Ile His Gly Glu Arg Gln
50           55           60
Lys Asp Lys Leu Val Val Leu Glu Cys Tyr Val Arg Lys Asp Leu Val
65           70           75           80
Tyr Thr Lys Ala Asn Pro Thr Phe His His Trp Lys Val Asp Asn Arg
85           90           95
Lys Phe Gly Leu Thr Phe Gln Ser Pro Ala Asp Ala Arg Ala Phe Asp
100          105          110
Arg Gly Val Arg Lys Ala Ile Glu Asp Leu Ile Glu Glu Val Glu Asn

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115 120 125
 Asp Ser Gly Gly Pro Arg Arg Leu Leu Ala Tyr Pro Leu Ser Ser Cys
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 Asn Gln Arg Pro Arg Val Tyr Ser Cys His
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<210> 3677
 <211> 418
 <212> DNA
 <213> Homo sapiens

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 tgccgaaaga gcatggagga agatgaaagg cagacaggtc gagaacatgc agtggcgatc
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<210> 3678
 <211> 139
 <212> PRT
 <213> Homo sapiens

<400> 3678
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 Met Pro Leu Trp Val Cys Gln Ser Cys Arg Lys Ser Met Glu Glu Asp
 35 40 45
 Glu Arg Gln Thr Gly Arg Glu His Ala Val Ala Ile Ser Leu Ser His
 50 55 60
 Thr Ser Cys Lys Ser Gln Ser Cys Gly Asp Asp Ser His Ser Ser Ser
 65 70 75 80
 Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Cys Pro Gly
 85 90 95
 Asn Ser Gly Asp Trp Asp Pro Ser Ser Phe Leu Ser Ala His Lys Leu
 100 105 110
 Ser Gly Leu Trp Asn Ser Pro His Ser Ser Gly Ala Met Pro Gly Ser
 115 120 125
 Ser Leu Gly Ser Pro Pro Thr Ile Pro Gly Ala
 130 135

<210> 3679
 <211> 567

<212> DNA
 <213> Homo sapiens

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 420
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<210> 3680
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 3680
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 Leu Glu Thr Ala Leu Lys Trp Arg Asn Tyr Glu Val Lys Leu Arg Leu
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 65 70 75 80
 Asp Leu Glu Ser Val Pro Met Thr Trp Asp Pro Val Asp Gln Asn Pro
 85 90 95
 Arg Leu Leu Thr Leu Glu Val Pro Gly Val Thr Glu Ser Arg Pro Ser
 100 105 110
 Val Leu Arg Gly Asp His Leu Phe Ala Leu Leu Ser Ser Glu Thr His
 115 120 125
 Gln Glu Asp Pro Ile Thr Tyr Lys Gly Phe Val His Lys Val Glu Leu
 130 135 140
 Asp Arg Val Lys Leu Ser Phe Ser Met Ser Leu Leu Ser Arg Phe Val
 145 150 155 160
 Asp Gly Leu Thr Phe Lys Val Asn Phe Thr Phe Asn Arg Gln Pro Leu
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180

185

<210> 3681
 <211> 788
 <212> DNA
 <213> Homo sapiens

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<210> 3682
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 3682
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 35 40 45
 Gly Pro Pro Gly Pro Thr Phe Phe Arg Gln Gln Asp Gly Leu Leu Arg
 50 55 60
 Gly Gly Tyr Glu Ala Gln Glu Pro Leu Cys Pro Ala Val Pro Pro Arg
 65 70 75 80
 Lys Ala Val Pro Val Thr Ser Phe Thr Tyr Ile Asn Glu Asp Phe Arg

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Thr	Glu	Ser	Pro	Pro	Ser	Pro	Ser	Ser	Asp	Val	Glu	Asp	Ala	Arg	Glu		
			100					105					110				
Gln	Arg	Ala	His	Asn	Ala	His	Leu	Arg	Gly	Pro	Pro	Pro	Lys	Leu	Ile		
		115					120					125					
Pro	Val	Ser	Gly	Lys	Leu	Glu	Lys	Asn	Ile	Glu	Lys	Ile	Leu	Ile	Arg		
		130				135					140						
Pro	Thr	Ala	Phe	Lys	Pro	Val	Leu	Pro	Lys	Pro	Arg	Gly	Ala	Pro	Ser		
145					150				155					160			
Leu	Pro	Ser	Phe	Met	Gly	Pro	Arg	Ala	Thr	Gly	Leu	Ser	Gly	Ser	Gln		
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<210> 3683

<211> 4421

<212> DNA

<213> Homo sapiens

<400> 3683

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<210> 3684

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3684

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<211> 1293

<212> DNA

<213> Homo sapiens

<400> 3685

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 Phe Thr Ser Cys Thr Phe Ser Gly Ser Arg Ser His Ile His Pro Thr
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<210> 3687
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 <212> DNA
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<211> 504

<212> PRT

<213> Homo sapiens

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 Val Cys Phe Thr Cys Asn Arg Ser Cys Arg Val Ala Pro Leu Ile Gln
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 Cys Asp Tyr Cys Pro Leu Leu Phe His Met Asp Cys Leu Glu Pro Pro
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<211> 418

<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Phe	Tyr	Val	Leu	Arg	Gln
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<212> DNA

<213> Homo sapiens

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2340

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<210> 3694

<211> 390

<212> PRT

<213> Homo sapiens

<400> 3694

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Ser	Gln	Ile	Met	Ala	Arg	Lys	Lys	Arg	Arg	Gly	Ile	Ile	Glu	Lys	Arg
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Cys	Leu	Arg	Val	Asn	Pro	Leu	Ser	Pro	Leu	His	Asn	Phe	Arg	Ser	Ala
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Ala Ala Ala Ala Thr Ala Ala Ala His Ser Phe Pro Leu Ser Phe Ala
      325              330              335
Gly Ala Phe Pro Met Leu Pro Pro Asn Ala Ala Ala Val Ala Ala
      340              345              350
Ala Thr Ala Ile Ser Pro Pro Leu Ser Val Ser Ala Thr Ser Ser Pro
      355              360              365
Gln Gln Thr Ser Ser Gly Thr Asn Asn Lys Pro Tyr Arg Pro Trp Gly
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<210> 3695

<211> 1615

<212> DNA

<213> Homo sapiens

<400> 3695

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gccccaagta ggaatatagc tctgcattta cagcagctcc tgctcagacc ttgtcaaaac
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 960

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 1080
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<210> 3696

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3696

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 20 25 30
 Tyr Phe Ala Glu Tyr Trp Tyr Gln Ala Gln Cys Cys Gln Tyr Asp Tyr
 35 40 45
 Cys Asn Ser Trp Ser Ser Pro Gln Leu Gln Ser Ser Leu Pro Glu Pro
 50 55 60
 His Asp Arg Pro Leu Ala Leu Pro Leu Ser Asp Ser Gln Ile Gln Trp
 65 70 75 80
 Phe Tyr Gln Ala Leu Asn Leu Ser Leu Pro Leu Pro Asn Phe His Ala
 85 90 95
 Gly Thr Glu Pro Asp Gly Leu Asp Pro Met Val Thr Leu Ser Leu Asn
 100 105 110
 Leu Gly Leu Ser Phe Ala Glu Leu Arg Arg Met Tyr Leu Phe Leu Asn
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 Pro Ser
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<210> 3697

<211> 550

<212> DNA

<213> Homo sapiens

<400> 3697

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 180
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 300
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<210> 3698

<211> 183

<212> PRT

<213> Homo sapiens

<400> 3698

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Ala	Arg	Gln	Ser	Trp	Gly	Gln	Cys	Gln	Pro	Val	Cys	Gln	Pro	Arg	Cys	35	40	45	
Lys	His	Gly	Glu	Cys	Ile	Gly	Pro	Asn	Lys	Cys	Lys	Cys	His	Pro	Gly	50	55	60	
Tyr	Ala	Gly	Lys	Thr	Cys	Asn	Gln	Asp	Leu	Asn	Glu	Cys	Gly	Leu	Lys	65	70	75	80
Pro	Arg	Pro	Cys	Lys	His	Arg	Cys	Met	Asn	Thr	Tyr	Gly	Ser	Tyr	Lys	85	90	95	
Cys	Tyr	Cys	Leu	Asn	Gly	Tyr	Met	Leu	Met	Pro	Asp	Gly	Ser	Cys	Ser	100	105	110	
Ser	Ala	Leu	Thr	Cys	Ser	Met	Ala	Asn	Cys	Gln	Tyr	Gly	Cys	Asp	Val	115	120	125	
Val	Lys	Gly	Gln	Ile	Arg	Cys	Gln	Cys	Pro	Ser	Pro	Gly	Leu	Gln	Leu	130	135	140	
Ala	Pro	Asp	Gly	Arg	Thr	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Thr	Gly	145	150	155	160
Arg	Ala	Ser	Cys	Pro	Lys	Phe	Arg	Gln	Cys	Val	Asn	Thr	Phe	Gly	Ser	165	170	175	
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 <212> DNA
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<210> 3700
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 <213> Homo sapiens

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 35 40 45
 Arg Asp Pro Asn Leu Pro Val His Ile Arg Gly Trp Leu His Lys Gln
 50 55 60
 Asp Ser Ser Gly Leu Arg Leu Trp Lys Arg Arg Trp Phe Val Leu Ser
 65 70 75 80
 Gly His Cys Leu Phe Tyr Tyr Lys Asp Ser Arg Glu Glu Ser Val Leu
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<210> 3701
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 <212> DNA
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<400> 3701

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 360
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 420
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 480
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<210> 3702
 <211> 236
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Thr Cys Asp Glu Cys Gly Lys Ser Phe Asn Met Gln Arg Lys Leu Val
 50 55 60
 Lys His Arg Ile Arg His Thr Gly Glu Arg Pro Tyr Ser Cys Ser Ala
 65 70 75 80
 Cys Gly Lys Cys Phe Gly Gly Ser Gly Asp Leu Arg Arg His Val Arg
 85 90 95
 Thr His Thr Gly Glu Lys Pro Tyr Thr Cys Glu Ile Cys Asn Lys Cys
 100 105 110
 Phe Thr Arg Ser Ala Val Leu Arg Arg His Lys Lys Met His Cys Lys
 115 120 125
 Ala Gly Asp Glu Ser Pro Asp Val Leu Glu Glu Leu Ser Gln Ala Ile
 130 135 140
 Glu Thr Ser Asp Leu Glu Lys Ser Gln Ser Ser Asp Ser Phe Ser Gln
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1320
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<211> 619

<212> PRT

<213> Homo sapiens

<400> 3704

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			20					25					30		
Leu	His	Leu	Leu	Lys	Ser	Ser	Cys	Ala	Pro	Ser	Val	Gln	Met	Lys	Ile
	35						40					45			
Lys	Glu	Leu	Tyr	Arg	Arg	Arg	Phe	Pro	Arg	Lys	Thr	Leu	Gly	Pro	Ser
	50					55					60				
Asp	Leu	Ser	Leu	Leu	Ser	Leu	Pro	Pro	Gly	Thr	Ser	Pro	Val	Gly	Ser
65					70					75				80	
Pro	Gly	Pro	Leu	Ala	Pro	Ile	Pro	Pro	Thr	Leu	Leu	Ala	Pro	Gly	Thr
				85					90					95	
Leu	Leu	Gly	Pro	Lys	Arg	Glu	Val	Asp	Met	His	Pro	Pro	Leu	Pro	Gln
			100					105					110		
Pro	Val	His	Pro	Asp	Val	Thr	Met	Lys	Pro	Leu	Pro	Phe	Tyr	Glu	Val
		115					120					125			
Tyr	Gly	Glu	Leu	Ile	Arg	Pro	Thr	Thr	Leu	Ala	Ser	Thr	Ser	Ser	Gln
	130					135					140				
Arg	Phe	Glu	Glu	Ala	His	Phe	Thr	Phe	Ala	Leu	Thr	Pro	Gln	Gln	Val
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Gln	Gln	Ile	Leu	Thr	Ser	Arg	Glu	Val	Leu	Pro	Gly	Ala	Lys	Cys	Asp
				165					170					175	
Tyr	Thr	Ile	Gln	Val	Gln	Leu	Arg	Phe	Cys	Leu	Cys	Glu	Thr	Ser	Cys
			180					185					190		
Pro	Gln	Glu	Asp	Tyr	Phe	Pro	Pro	Asn	Leu	Phe	Val	Lys	Val	Asn	Gly
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Lys	Leu	Cys	Pro	Leu	Pro	Gly	Tyr	Leu	Pro	Pro	Thr	Lys	Asn	Gly	Ala
	210					215						220			
Glu	Pro	Lys	Arg	Pro	Ser	Arg	Pro	Ile	Asn	Ile	Thr	Pro	Leu	Ala	Arg

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          260          265          270
Ala Gly Thr Leu Leu Gln Lys Leu Arg Ala Lys Gly Ile Arg Asn Pro
          275          280          285
Asp His Ser Arg Ala Leu Ile Lys Glu Lys Leu Thr Ala Asp Pro Asp
          290          295          300
Ser Glu Val Ala Thr Thr Ser Leu Arg Val Ser Leu Met Cys Pro Leu
305          310          315          320
Gly Lys Met Arg Leu Thr Val Pro Cys Arg Ala Leu Thr Cys Ala His
          325          330          335
Leu Gln Ser Phe Asp Ala Ala Leu Tyr Leu Gln Met Asn Glu Lys Lys
          340          345          350
Pro Thr Trp Thr Cys Pro Val Cys Asp Lys Lys Ala Pro Tyr Glu Ser
          355          360          365
Leu Ile Ile Asp Gly Leu Phe Met Glu Ile Leu Ser Ser Cys Ser Asp
          370          375          380
Cys Asp Glu Ile Gln Phe Met Glu Asp Gly Ser Trp Cys Pro Met Lys
385          390          395          400
Pro Lys Lys Glu Ala Ser Glu Val Cys Pro Pro Pro Gly Tyr Gly Leu
          405          410          415
Asp Gly Leu Gln Tyr Ser Pro Val Gln Gly Gly Asp Pro Ser Glu Asn
          420          425          430
Lys Lys Lys Val Glu Val Ile Asp Leu Thr Ile Glu Ser Ser Ser Asp
          435          440          445
Glu Glu Asp Leu Pro Pro Thr Lys Lys His Cys Ser Val Thr Ser Ala
          450          455          460
Ala Ile Pro Ala Leu Pro Gly Ser Lys Gly Val Leu Thr Ser Gly His
465          470          475          480
Gln Pro Ser Ser Val Leu Arg Ser Pro Ala Met Gly Thr Leu Gly Gly
          485          490          495
Asp Phe Leu Ser Ser Leu Pro Leu His Glu Tyr Pro Pro Ala Phe Pro
          500          505          510
Leu Gly Ala Asp Ile Gln Gly Leu Asp Leu Phe Ser Phe Leu Gln Thr
          515          520          525
Glu Ser Gln His Tyr Gly Pro Ser Val Ile Thr Ser Leu Asp Glu Gln
          530          535          540
Asp Ala Leu Gly His Phe Phe Gln Tyr Arg Gly Thr Pro Ser His Phe
545          550          555          560
Leu Gly Pro Leu Ala Pro Thr Leu Gly Ser Ser His Cys Ser Ala Thr
          565          570          575
Pro Ala Pro Pro Pro Gly Arg Val Ser Ser Ile Val Ala Pro Gly Gly
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Ala Leu Arg Glu Gly His Gly Gly Pro Leu Pro Ser Gly Pro Ser Leu
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Thr Gly Cys Arg Ser Asp Ile Ile Ser Leu Asp
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<210> 3705

<211> 1737

<212> DNA

<213> Homo sapiens

<400> 3705

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 <212> DNA
 <213> Homo sapiens

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<210> 3708

<211> 106

<212> PRT

<213> Homo sapiens

<400> 3708

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			20					25					30		
Glu	Asn	Ala	Phe	Asp	Asn	Ile	Gln	Leu	Pro	Tyr	Met	Ile	Lys	Thr	Leu
		35					40					45			
Lys	Lys	Leu	Gly	Ile	Glu	Gly	Met	Tyr	Leu	Asn	Val	Ile	Lys	Ala	Val
	50					55				60					
Tyr	Asp	Arg	Pro	Xaa	Val	Ser	Ile	Ile	Leu	Asn	Gly	Glu	Asn	Leu	Gln
65					70					75				80	
Glu	Leu	Gln	Thr	Phe	Gly	Leu	Arg	Ser	Gly	Thr	Gln	Gln	Gly	Cys	Pro
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<210> 3709

<211> 3768

<212> DNA

<213> Homo sapiens

<400> 3709

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<211> 70

<212> PRT

<213> Homo sapiens

<400> 3710

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		20					25					30			
Cys	Asp	Val	Ile	Leu	Val	Ala	Gly	Asp	Arg	Arg	Ile	Pro	Ala	His	Arg
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Leu	Val	Leu	Ser	Ser	Val	Ser	Asp	Tyr	Phe	Ala	Ala	Met	Phe	Thr	Asn
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<210> 3711

<211> 1366

<212> DNA

<213> Homo sapiens

<400> 3711

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<210> 3712

<211> 368

<212> PRT

<213> Homo sapiens

<400> 3712

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			20					25					30		
Leu	Gly	Arg	Gly	Phe	Asn	Thr	Gly	Val	Ile	Leu	Leu	Arg	Leu	Asp	Arg
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Leu	Arg	Gln	Ala	Gly	Trp	Glu	Gln	Met	Trp	Arg	Leu	Thr	Ala	Arg	Arg
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Glu	Leu	Leu	Ser	Leu	Pro	Ala	Ala	Ser	Leu	Ala	Asp	Gln	Asp	Ile	Phe
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Asn	Ala	Val	Ile	Lys	Glu	His	Pro	Gly	Leu	Val	Gln	Arg	Leu	Pro	Cys
			85					90						95	
Val	Trp	Asn	Val	Gln	Leu	Ser	Asp	His	Thr	Leu	Ala	Glu	Arg	Cys	Tyr
		100						105					110		
Ser	Glu	Ala	Ser	Asp	Leu	Lys	Val	Ile	His	Trp	Asn	Ser	Pro	Lys	Lys
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Leu	Arg	Val	Lys	Asn	Lys	His	Val	Glu	Phe	Phe	Arg	Asn	Phe	Tyr	Leu
	130					135					140				
Thr	Phe	Leu	Glu	Tyr	Asp	Gly	Asn	Leu	Leu	Arg	Arg	Glu	Leu	Phe	Val
145				150					155					160	
Cys	Pro	Ser	Gln	Pro	Pro	Pro	Gly	Ala	Glu	Gln	Leu	Gln	Gln	Ala	Leu
			165						170					175	
Ala	Gln	Leu	Asp	Glu	Glu	Asp	Pro	Cys	Phe	Glu	Phe	Arg	Gln	Gln	Gln
		180						185					190		
Leu	Thr	Val	His	Arg	Val	His	Val	Thr	Phe	Leu	Pro	His	Glu	Pro	Pro
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Pro	Pro	Arg	Pro	His	Asp	Val	Thr	Leu	Val	Ala	Gln	Leu	Ser	Met	Asp
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<212> DNA
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<210> 3714

<211> 488

<212> PRT

<213> Homo sapiens

<400> 3714

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			20						25				30		
Val	Asn	Glu	Gln	His	Ser	Gly	Ser	Asp	Thr	Gly	Ser	Val	Glu	Arg	His
			35						40				45		
Ser	Glu	Asn	Glu	Thr	Ser	Asp	Arg	Glu	Asp	Gly	Pro	Pro	Lys	Gly	His
			50						55				60		
His	Val	Thr	Asp	Ser	Glu	Asn	Asp	Glu	Pro	Leu	Asn	Leu	Asn	Ala	Ser
65						70				75				80	
Asp	Ser	Glu	Ser	Glu	Glu	Leu	His	Arg	Gln	Lys	Asp	Ser	Asp	Ser	Glu
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Ser	Glu	Glu	Arg	Ala	Glu	Pro	Pro	Ala	Ser	Asp	Ser	Glu	Asn	Glu	Asp
						100				105				110	
Val	Asn	Gln	His	Gly	Ser	Asp	Ser	Glu	Ser	Glu	Glu	Thr	Arg	Lys	Leu
						115				120				125	
Pro	Gly	Ser	Asp	Ser	Glu	Asn	Glu	Glu	Leu	Leu	Asn	Gly	His	Ala	Ser
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          195          200          205
Ser Asp Ser Glu Ser Glu Glu Leu Pro Lys Pro Gln Val Ser Asp Ser
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Glu Ser Glu Glu Pro Pro Arg His Gln Ala Ser Asp Ser Glu Asn Glu
225          230          235          240
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Arg His Gln Ala Ser Asp Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg
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          275          280          285
Ser Glu Asn Glu Glu Leu Pro Lys Pro Arg Val Ser Asp Ser Glu Ser
          290          295          300
Glu Gly Pro Gln Lys Gly Pro Ala Ser Asp Ser Glu Thr Glu Asp Ala
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          420          425          430
Glu Lys Thr Ile Ala Ser Asp Ser Glu Glu Glu Ala Gly Lys Glu Leu
          435          440          445
Ser Asp Lys Lys Asn Glu Glu Lys Asp Leu Phe Gly Ser Asp Ser Glu
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<210> 3715

<211> 288

<212> DNA

<213> Homo sapiens

<400> 3715

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 Lys Ala His Lys Arg Tyr Leu Leu Met Ser Ile Asp Gln Arg Lys Lys
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<212> PRT

<213> Homo sapiens

<400> 3718

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Cys	Leu	Glu	Arg	Glu	Glu	Tyr	Leu	Leu	Phe	Asp	Ser	Asp	Lys	Leu	Ser
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Ala	Ala	Cys	Val	Ser	Ile	Pro	His	Leu	Asp	Leu	Lys	Asn	Val	Ser	Asp
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Asp	Ser	Glu	Ser	Gly	Glu	Ala	Gln	Leu	Ser	Pro	Gln	Ala	Gly	Arg	Met
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 Glu Arg Glu Arg Asn Ser Lys Pro Ser Tyr Ser Asp Ile Ala Ala Asn
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 Pro Lys Val Leu Lys Trp Met Thr Glu Leu Thr Lys Leu Arg Lys Gln
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 Ile Lys Asp Ala Lys His Lys Asn Ser Asp Gly Glu Phe Val Pro Gln
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 275 280 285
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 Met Thr Lys Asp His Leu Val Glu Glu Lys Ala Ser Leu Gln Lys Ser
 325 330 335
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<212> DNA

<213> Homo sapiens

<400> 3719

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 Leu Gln Leu Ile Met Val Ser Thr Pro Ser Leu Leu Val Val Leu His
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 Val Ala Tyr His Glu Gly Arg Glu Lys Arg His Arg Lys Lys Leu Tyr
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 <212> PRT
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 Ala Phe Leu Asn Gly Glu Thr Gln Ile Met Ala Asp Glu Ala Phe Met
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 85 90 95
 Ala Arg Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Ser Arg Glu
 100 105 110
 Val Phe Lys Lys His Ile Glu Lys Arg Val Arg Ser Leu Pro Glu Ile
 115 120 125
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 145 150 155 160
 Met Thr Ala Ser Ala Ala Ser Glu Leu Ile Leu Ser Lys Glu Gln Leu

2871

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<210> 3723

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3723

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 180
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 420
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 720

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<210> 3724
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 3724
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 20 25 30
 Asp Phe Gly Leu Ala Arg Arg Tyr Asn Pro Asn Glu Lys Leu Lys Val
 35 40 45
 Asn Phe Gly Thr Pro Glu Phe Leu Ser Pro Glu Val Val Asn Tyr Asp
 50 55 60
 Gln Ile Ser Asp Lys Thr Asp Met Trp Ser Met Gly Val Ile Thr Tyr
 65 70 75 80
 Met Leu Leu Ser Gly Leu Ser Pro Phe Leu Gly Asp Asp Asp Thr Glu
 85 90 95
 Thr Leu Asn Asn Val Leu Ser Gly Asn Trp Tyr Phe Asp Glu Glu Thr
 100 105 110
 Phe Glu Ala Val Ser Asp Glu Ala Lys Asp Phe Val Ser Asn Leu Ile
 115 120 125
 Val Lys Asp Gln Arg Ala Arg Met Asn Ala Ala Gln Cys Leu Ala His
 130 135 140
 Pro Trp Leu Asn Asn Leu Ala Glu Lys Ala Lys Arg Cys Asn Arg Arg
 145 150 155 160
 Leu Lys Ser Gln Ile Leu Leu Lys Lys Tyr Leu Met Lys Arg Arg Trp
 165 170 175
 Lys Lys Asn Phe Ile Ala Val Ser Ala Ala Asn Arg Phe Lys Lys Ile
 180 185 190
 Ser Ser Ser Gly Ala Leu Met Ala Leu Gly Val
 195 200

<210> 3725
 <211> 1244
 <212> DNA
 <213> Homo sapiens

<400> 3725
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 120
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 180
 gataaactgc taaccgaatc cctgaagaac aatatccctg caagcggact gcacctcttt
 240
 ggaatcaacc agctggaaga agaagatatg atgacaaatc agagggatga agagctgccc
 300

accctgttgc attttgctgc gaagtatgga ctgaagaacc tcaactgcctt gttgctcacc
 360
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 420
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 480
 gtggacatgc tcaagagtca cattaagag gaactgatgc acggggagga ggctgatgct
 540
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 660
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 720
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 780
 aatctggaga gagatcagtg ccatcttggg caggaagaag atgtttatca cacggtggat
 840
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 960
 aagtatggca gggaatgatg tccaactggg tctttggagc ttctcaacag ggatttctct
 1020
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 1080
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 1140
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 1244

<210> 3726

<211> 325

<212> PRT

<213> Homo sapiens

<400> 3726

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		20						25					30		
Gly	Arg	Glu	Leu	Asp	Phe	Arg	Ser	Asp	His	Leu	His	Phe	Cys	Phe	Gln
		35					40					45			
Ala	Phe	Lys	Ile	Val	Pro	Tyr	Asn	Thr	Glu	Thr	Leu	Asp	Lys	Leu	Leu
	50					55					60				
Thr	Glu	Ser	Leu	Lys	Asn	Asn	Ile	Pro	Ala	Ser	Gly	Leu	His	Leu	Phe
65					70					75				80	
Gly	Ile	Asn	Gln	Leu	Glu	Glu	Glu	Asp	Met	Met	Thr	Asn	Gln	Arg	Asp
			85					90					95		
Glu	Glu	Leu	Pro	Thr	Leu	Leu	His	Phe	Ala	Ala	Lys	Tyr	Gly	Leu	Lys
			100					105					110		
Asn	Leu	Thr	Ala	Leu	Leu	Leu	Thr	Cys	Pro	Gly	Ala	Leu	Gln	Ala	Tyr


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<210> 3727
<211> 630
<212> DNA
<213> Homo sapiens
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120
ctcgaccccg ctgagaaaca agaaacaggc tgtctctctt tgggtctgga gtccctgcga
180
gtttcagata gccggcttga ggcattccagc agccagtcct ttggtcttgg accacaccga
240
ggacggctca acattcagtc aggcctggag gacggcgatc tatatgatgg agcctgggtgt
300
gctgaggagc aggacgccga tccatggttt caggtggacg ctgggcaccc caccgcgttc
360
tcgggtgtta tcacacaggg caggaactct gtctggaggt atgactgggt cacatcatac
420
aaggtccagt tcagcaatga cagtcggacc tgggtggggaa gtaggaacca cagcagtgagg
480
atggacgcag tatttctgc caattcagac ccagaaactc cagtgtgtaa cctcctgccg
540
gagccccagg tggcccgcctt cattcgcttg ctgccccaga cctggctcca gggaggcgcg
600

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ccttgccctcc gggcagagat cctggcctgc
630

<210> 3728
<211> 210
<212> PRT
<213> Homo sapiens

<400> 3728
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20 25 30
Val Thr Pro Thr Pro Ala Gly Thr Leu Asp Pro Ala Glu Lys Gln Glu
35 40 45
Thr Gly Cys Pro Pro Leu Gly Leu Glu Ser Leu Arg Val Ser Asp Ser
50 55 60
Arg Leu Glu Ala Ser Ser Ser Gln Ser Phe Gly Leu Gly Pro His Arg
65 70 75 80
Gly Arg Leu Asn Ile Gln Ser Gly Leu Glu Asp Gly Asp Leu Tyr Asp
85 90 95
Gly Ala Trp Cys Ala Glu Glu Gln Asp Ala Asp Pro Trp Phe Gln Val
100 105 110
Asp Ala Gly His Pro Thr Arg Phe Ser Gly Val Ile Thr Gln Gly Arg
115 120 125
Asn Ser Val Trp Arg Tyr Asp Trp Val Thr Ser Tyr Lys Val Gln Phe
130 135 140
Ser Asn Asp Ser Arg Thr Trp Trp Gly Ser Arg Asn His Ser Ser Gly
145 150 155 160
Met Asp Ala Val Phe Pro Ala Asn Ser Asp Pro Glu Thr Pro Val Leu
165 170 175
Asn Leu Leu Pro Glu Pro Gln Val Ala Arg Phe Ile Arg Leu Leu Pro
180 185 190
Gln Thr Trp Leu Gln Gly Gly Ala Pro Cys Leu Arg Ala Glu Ile Leu
195 200 205
Ala Cys
210

<210> 3729
<211> 1552
<212> DNA
<213> Homo sapiens

<400> 3729
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180
tggttagagt cctcagaagc atgtgtcttc ccagctctg cagccacata ctatccgttt
240
gttcaggaac caccagtgc agagcagaaa atatatactg aagacatggc ctttggagct
300

tcaacttttc cacctcagta tttatcttct gagataactc ttcattccata tgcctattct
 360
 ccttataccc ttgactccac acagaatggt tactcagtgc ctggctccca gtatctttat
 420
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 480
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 540
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 600
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 660
 taccataagc gaacagacag gaaatccaga atcattgcaa aaaatgtatc tacctccaaa
 720
 cctgagtttg aatttaccac actggacttt cctgaactgc aagggtgcaga gaacaatatg
 780
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 840
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 900
 aataacccaa atgaatctgt aactgctaata gccgctacca attctccttc atgtacaaga
 960
 gagttatctt ggacaccaat gggttatggt gttcgacaga cattatctac agaactgtca
 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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 1380
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 1440
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<210> 3730

<211> 422

<212> PRT

<213> Homo sapiens

<400> 3730

Met	Ala	Phe	Gly	Ala	Ser	Thr	Phe	Pro	Pro	Gln	Tyr	Leu	Ser	Ser	Glu
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Ile	Thr	Leu	His	Pro	Tyr	Ala	Tyr	Ser	Pro	Tyr	Thr	Leu	Asp	Ser	Thr
			20					25					30		
Gln	Asn	Val	Tyr	Ser	Val	Pro	Gly	Ser	Gln	Tyr	Leu	Tyr	Asn	Gln	Pro

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Ser Cys Tyr Arg Gly Phe Gln Thr Val Lys His Arg Asn Glu Asn Thr
  50              55              60
Cys Pro Leu Pro Gln Glu Met Lys Ala Leu Phe Lys Lys Lys Thr Tyr
  65              70              75              80
Asp Glu Lys Lys Thr Tyr Asp Gln Gln Lys Phe Asp Ser Glu Arg Ala
      85              90              95
Asp Gly Thr Ile Ser Ser Glu Ile Lys Ser Ala Arg Gly Ser His His
      100              105              110
Leu Ser Ile Tyr Ala Glu Asn Ser Leu Lys Ser Asp Gly Tyr His Lys
      115              120              125
Arg Thr Asp Arg Lys Ser Arg Ile Ile Ala Lys Asn Val Ser Thr Ser
      130              135              140
Lys Pro Glu Phe Glu Phe Thr Thr Leu Asp Phe Pro Glu Leu Gln Gly
      145              150              155              160
Ala Glu Asn Asn Met Ser Glu Ile Gln Lys Gln Pro Lys Trp Gly Pro
      165              170              175
Val His Ser Val Ser Thr Asp Ile Ser Leu Leu Arg Glu Val Val Lys
      180              185              190
Pro Ala Ala Val Leu Ser Lys Gly Glu Ile Val Val Lys Asn Asn Pro
      195              200              205
Asn Glu Ser Val Thr Ala Asn Ala Ala Thr Asn Ser Pro Ser Cys Thr
      210              215              220
Arg Glu Leu Ser Trp Thr Pro Met Gly Tyr Val Val Arg Gln Thr Leu
      225              230              235              240
Ser Thr Glu Leu Ser Ala Ala Pro Lys Asn Val Thr Ser Met Ile Asn
      245              250              255
Leu Lys Thr Ile Ala Ser Ser Ala Asp Pro Lys Asn Val Ser Ile Pro
      260              265              270
Ser Ser Glu Ala Leu Ser Ser Asp Pro Ser Tyr Asn Lys Glu Lys His
      275              280              285
Ile Ile His Pro Thr Gln Lys Ser Lys Ala Ser Gln Gly Ser Asp Leu
      290              295              300
Glu Gln Asn Glu Ala Ser Arg Lys Asn Lys Lys Lys Lys Glu Lys Ser
      305              310              315              320
Thr Ser Lys Tyr Glu Val Leu Thr Val Gln Glu Pro Pro Arg Ile Glu
      325              330              335
Asp Ala Glu Glu Phe Pro Asn Leu Ala Val Ala Ser Glu Arg Arg Asp
      340              345              350
Arg Ile Glu Thr Pro Lys Phe Gln Ser Lys Gln Gln Pro Gln Asp Asn
      355              360              365
Phe Lys Asn Asn Val Lys Lys Ser Gln Leu Pro Val Gln Leu Asp Leu
      370              375              380
Gly Gly Met Leu Thr Ala Leu Glu Lys Lys Gln His Ser Gln His Ala
      385              390              395              400
Lys Gln Ser Ser Lys Pro Val Val Val Ser Val Gly Ala Val Pro Val
      405              410              415
Leu Ser Lys Glu Cys Ala
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<210> 3731
 <211> 1704
 <212> DNA
 <213> Homo sapiens

<400> 3731

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tgtgcagtgc tgctcccagc atcactgttc gtcaatagtc acccaggaat agaccggcct
180
ggcatgctct gcagtttccg gatccctggg gcttggctcct gtgctgggtc cctgaatata
240
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420
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480
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900
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1020
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1080
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1140
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1200
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1320
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1560

attcaagggc ccggcgtcaa aggaaattgg ttttgacttt ttgtaatcta ggagcgacag
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 1680
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 1704

<210> 3732
 <211> 281
 <212> PRT
 <213> Homo sapiens

<400> 3732
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 Cys Trp Ala Ser Leu Asn Gln Leu Asp Ser His Val Leu Leu Cys Phe
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 Glu Gly Ile Thr Asp Ala Ser Ser Cys Ala Val Leu Leu Pro Ala Ser
 35 40 45
 Leu Phe Val Asn Ser His Pro Gly Ile Asp Arg Pro Gly Met Leu Cys
 50 55 60
 Ser Phe Arg Ile Pro Gly Ala Trp Ser Cys Ala Trp Ser Leu Asn Ile
 65 70 75 80
 Gln Ala Asn Asn Cys Phe Ser Thr Gly Leu Ser Arg Arg Val Leu Leu
 85 90 95
 Thr Asn Val Val Thr Gly His Arg Gln Ser Phe Gly Thr Asn Ser Asp
 100 105 110
 Val Leu Ala Gln Gln Phe Ala Leu Met Ala Pro Leu Leu Phe Asn Gly
 115 120 125
 Cys Arg Ser Gly Glu Ile Phe Ala Ile Asp Leu Arg Cys Gly Asn Gln
 130 135 140
 Gly Lys Gly Trp Lys Ala Thr Arg Leu Phe His Asp Ser Ala Val Thr
 145 150 155 160
 Ser Val Arg Ile Leu Gln Asp Glu Gln Tyr Leu Met Ala Ser Asp Met
 165 170 175
 Ala Gly Lys Ile Lys Leu Trp Asp Leu Arg Thr Thr Lys Cys Val Arg
 180 185 190
 Gln Tyr Glu Gly His Val Asn Glu Tyr Ala Tyr Leu Pro Leu His Val
 195 200 205
 His Glu Glu Glu Gly Ile Leu Val Ala Val Gly Gln Asp Cys Tyr Thr
 210 215 220
 Arg Ile Trp Ser Leu His Asp Ala Arg Leu Leu Arg Thr Ile Pro Ser
 225 230 235 240
 Pro Tyr Pro Ala Ser Lys Ala Asp Ile Pro Ser Val Ala Phe Ser Ser
 245 250 255
 Arg Leu Gly Gly Ser Arg Gly Ala Pro Gly Leu Leu Met Ala Val Gly
 260 265 270
 Gln Asp Leu Tyr Cys Tyr Ser Tyr Ser
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<210> 3733
 <211> 515
 <212> DNA
 <213> Homo sapiens

<400> 3733

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 180
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 240
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 300
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 515

<210> 3734

<211> 171

<212> PRT

<213> Homo sapiens

<400> 3734

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Val	Ser	Gly	Ser	Arg	Tyr	Arg	Arg	Gly	Arg	Arg	Arg	Gly	Arg	Leu	Lys
			20					25					30		
Gly	Lys	Asp	Pro	Gly	Ser	Ala	Pro	Ser	Ser	Val	Arg	Glu	Arg	Glu	Thr
		35					40					45			
Pro	Gly	Ala	Xaa	Pro	Cys	Leu	Pro	Arg	Arg	Gly	Trp	Cys	Val	Pro	Gly
	50				55					60					
Asp	Val	Arg	Ser	Ser	Pro	Pro	Leu	Pro	Gly	Trp	Cys	Ala	Leu	Ser	Asp
65					70				75					80	
Val	Arg	Ser	Arg	Gly	Arg	Ser	Cys	Pro	Ser	Ala	Pro	Lys	Ala	Ala	Gly
			85					90					95		
Gly	Leu	Arg	Ala	Trp	Gly	Arg	Gly	Ser	Gly	Ala	Ala	Arg	Ala	Pro	Ala
			100					105					110		
Pro	Ala	Pro	Ser	Pro	Ser	Ser	Gly	Xaa	Ser	Pro	Ser	Ser	Arg	Thr	Pro
		115					120					125			
Arg	Asp	Trp	Ser	Ala	Ser	Arg	Cys	Trp	Thr	Trp	Ser	Gly	Ala	Ala	Thr
	130					135					140				
Ala	Pro	Thr	Pro	Phe	Ser	Pro	Ala	Gln	Gln	Pro	Pro	Ser	Ser	His	Asp
145					150					155					160
Gly	Leu	Ser	Leu	Asp	Pro	Ser	Gln	Leu	Glu	Pro					
				165						170					

<210> 3735

<211> 2512

<212> DNA

<213> Homo sapiens

<400> 3735

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180
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720
acaagggtga gtttgacaca aaaccactga agtttggtcg ctggcagaat tccaaacgat
780
tgctctatgg gtctttggta tgcattgtcca aggacaactt cgagacattt ctttttgcca
840
ccgtatctaa cagggagcag gaagatctct gccgaggaat tgtccagctc tgcttcaatg
900
agcaaagcca acagctgcta gcagagggtcc agccctctga ctctttcctc atggtagaga
960
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1020
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1080
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1140
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1200
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1260
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1500
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1560

ccatgcacct ccgaagggcc tacatgagta tcatgacaca gatgaaggag tcagagcaag
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 1680
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 1800
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 1920
 aagctgacct gattcaagca gaccgggtga ttgaggagga agaggtggtg agggcccagg
 1980
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 2040
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 2160
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 2280
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 2340
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 2400
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<210> 3736

<211> 155

<212> PRT

<213> Homo sapiens

<400> 3736

Thr	Ile	Val	Ala	Leu	Gly	Gln	Gln	Leu	Asp	Arg	Ser	Lys	Pro	Gln	Glu
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Ser	Gly	Arg	Pro	Ser	Ala	Thr	Gln	Lys	Lys	Lys	Met	Lys	Lys	Arg	Val
			20					25					30		
Lys	Asp	Glu	Leu	Arg	Lys	Leu	Asn	Thr	Met	Pro	Ala	Ala	Glu	Ala	Asn
		35					40					45			
Glu	Ile	Glu	Asp	Val	Trp	His	Leu	Asp	Leu	Ser	Ser	Arg	Trp	Gln	Leu
	50					55					60				
Tyr	Arg	Leu	Trp	Leu	Gln	Leu	Tyr	Gln	Ala	Asp	Thr	Pro	Pro	Gly	Lys
65					70					75				80	
Ile	Leu	Ser	Tyr	Glu	Arg	Gln	Tyr	Arg	Thr	Ser	Ala	Glu	Arg	Met	Ala
				85					90					95	
Glu	Leu	Arg	Leu	Gln	Glu	Asp	Leu	His	Ile	Leu	Lys	Asp	Ala	Gln	Val
			100					105					110		
Val	Gly	Met	Thr	Thr	Thr	Gly	Ala	Ala	Lys	Tyr	Arg	Gln	Ile	Leu	Gln

	115		120		125										
Lys	Val	Glu	Pro	Arg	Ile	Val	Ile	Val	Glu	Glu	Ala	Ala	Glu	Val	Leu
	130				135								140		
Glu	Ala	His	Thr	Ile	Ala	Thr	Leu	Ser	Lys	Ala					
145					150					155					

<210> 3737
 <211> 1046
 <212> DNA
 <213> Homo sapiens

<400> 3737
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 aatgagccca aggtgacgac aagctgcccc cagcagggcc tgcaggctgt gcccgtgggc
 120
 atccctgctg ccagccagcg catcttctctg cacggcaacc gcactctcgca tgtgccagct
 180
 gccagcttcc gtgcctgccg caacctcacc atcctgtggc tgcactcgaa tgtgctggcc
 240
 cgaattgatg cggtgcctt cactggcctg gccctcctgg gagcactgga cctcagcgat
 300
 aatgcacagc tccggtctgt ggacctgcc acattccacg gcctgggccc cctacacacg
 360
 ctgcacctgg accgctgcgg cctgcaggag ctggggcccgg ggctgttccg cggcctggct
 420
 gccctgcagt acctctacct gcaggacaac gcgctgcagg cactgcctga tgacaccttc
 480
 cgcgacctgg gcaacctcac acacctcttc ctgcacggca accgcatctc cagcgtgccc
 540
 gagcgcgccct tccgtgggct gcacagcctc gaccgtctcc tactgcacca gaaccgctg
 600
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 660
 gccaacaatc tatcagcgct gccactgag gccctggccc ccctgcgtgc cctgcagtac
 720
 ctgaggctca acgacaaccc ctgggtgtgt gactgccggg cacgcccact ctgggcctgg
 780
 ctgcagaagt tccgcggctc ctctccgag gtgccctgca gcctcccga acgcctggct
 840
 ggccgtgacc tcaaacgcct agctgccaat gacctgcagg gctgcgctgt ggccaccggc
 900
 ccttaccatc ccatctggac cggcagggcc accgatgagg agccgctggg gcttcccaag
 960
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 1020
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 1046

<210> 3738
 <211> 348
 <212> PRT
 <213> Homo sapiens

<400> 3738

Xaa Ala Val Ala Ala Gly Trp Gln Val Ala Ala Pro Cys Pro Gly Ala
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 Cys Val Cys Tyr Asn Glu Pro Lys Val Thr Thr Ser Cys Pro Gln Gln
 20 25 30
 Gly Leu Gln Ala Val Pro Val Gly Ile Pro Ala Ala Ser Gln Arg Ile
 35 40 45
 Phe Leu His Gly Asn Arg Ile Ser His Val Pro Ala Ala Ser Phe Arg
 50 55 60
 Ala Cys Arg Asn Leu Thr Ile Leu Trp Leu His Ser Asn Val Leu Ala
 65 70 75 80
 Arg Ile Asp Ala Ala Phe Thr Gly Leu Ala Leu Leu Gly Ala Leu
 85 90 95
 Asp Leu Ser Asp Asn Ala Gln Leu Arg Ser Val Asp Pro Ala Thr Phe
 100 105 110
 His Gly Leu Gly Arg Leu His Thr Leu His Leu Asp Arg Cys Gly Leu
 115 120 125
 Gln Glu Leu Gly Pro Gly Leu Phe Arg Gly Leu Ala Ala Leu Gln Tyr
 130 135 140
 Leu Tyr Leu Gln Asp Asn Ala Leu Gln Ala Leu Pro Asp Asp Thr Phe
 145 150 155 160
 Arg Asp Leu Gly Asn Leu Thr His Leu Phe Leu His Gly Asn Arg Ile
 165 170 175
 Ser Ser Val Pro Glu Arg Ala Phe Arg Gly Leu His Ser Leu Asp Arg
 180 185 190
 Leu Leu Leu His Gln Asn Arg Val Ala His Val His Pro His Ala Phe
 195 200 205
 Arg Asp Leu Gly Arg Leu Met Thr Leu Tyr Leu Phe Ala Asn Asn Leu
 210 215 220
 Ser Ala Leu Pro Thr Glu Ala Leu Ala Pro Leu Arg Ala Leu Gln Tyr
 225 230 235 240
 Leu Arg Leu Asn Asp Asn Pro Trp Val Cys Asp Cys Arg Ala Arg Pro
 245 250 255
 Leu Trp Ala Trp Leu Gln Lys Phe Arg Gly Ser Ser Ser Glu Val Pro
 260 265 270
 Cys Ser Leu Pro Gln Arg Leu Ala Gly Arg Asp Leu Lys Arg Leu Ala
 275 280 285
 Ala Asn Asp Leu Gln Gly Cys Ala Val Ala Thr Gly Pro Tyr His Pro
 290 295 300
 Ile Trp Thr Gly Arg Ala Thr Asp Glu Glu Pro Leu Gly Leu Pro Lys
 305 310 315 320
 Cys Cys Gln Pro Asp Ala Ala Asp Lys Ala Ser Val Leu Glu Pro Gly
 325 330 335
 Arg Pro Ala Ser Ala Gly Asn Ala Leu Lys Gly Arg
 340 345

<210> 3739

<211> 1252

<212> DNA

<213> Homo sapiens

<400> 3739

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 120
 agtgaggagg gcctggagat gtcattcaa tgagcgggag gcacctctcc cttcccgtaa
 180
 cttctccctt aactgggtca gctctcggtc ctgagagtga accaggactt tatattgctg
 240
 tatttcttct gtcgggtggc caggaagccg gccagttgag ttagaaaaca tctctctttg
 300
 aggtttctga actgctgttt gttctctgcc aactgggggc gcaatttctc gttgatttct
 360
 agaatgttca tctctgcctt ctcgctggac aaagggccgg ctgataccac catgctgacg
 420
 tttgtggcag aagaggtgga gtcagggact tactgttgtg aaaaatgtga tcaactccca
 480
 cagcacttta ggatccttca ccacaaaaac aaggttcgag gtgcctcaac tcagagctga
 540
 aagcactgcc agtagctcag actctgataa gagtggagta gattgtggcc agcgtgccag
 600
 gtaaccgtct tgatccatag gctcacattt gatcccaact ggcggtgct tcttggcatt
 660
 aactttggat tcccaaccag taaatcttag caagatctga gtttctccag gtatgatatt
 720
 attttgtttg accatcctta tcttcaaggg ctgttggtatc tggcagctct tgatgtcagc
 780
 ccacaccatg tgaggctgct cttggtgcac cgaatgggga agtttctaca tcagggcctc
 840
 ggagaatcca ctggaagccc tggacagtgg gagtgcagcg cccccaggt gtggaggcca
 900
 agagcacaca gcaactgaagc tccaggacac cctcaggagg acggcaaggg acaattggct
 960
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 1020
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 1080
 gcgcgcgcgc gcctcgccc agctcctggc gccgcagatc gcccgctccg cgttcccaaa
 1140
 agccccgcgc tcgctcagaa gctcgggcag cctcgcgacc ctcacctacc cttcccaata
 1200
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 1252

<210> 3740

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3740

Met	Gly	Lys	Phe	Leu	His	Gln	Gly	Leu	Gly	Glu	Ser	Thr	Gly	Ser	Pro
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Gly	Gln	Trp	Glu	Ser	Ala	Ala	Pro	Pro	Val	Trp	Arg	Pro	Arg	Ala	His
		20					25					30			
Ser	Thr	Glu	Ala	Pro	Gly	His	Pro	Gln	Glu	Asp	Gly	Lys	Gly	Gln	Leu
		35				40					45				
Ala	Gly	Glu	Ser	Pro	Gly	His	Arg	Glu	Pro	Ser	Pro	Gly	Ser	Lys	Gln

```

      50              55              60
Asp Leu Pro Ser Asp Cys Leu Arg Asn Ala Gly Trp Thr Ser Arg Asn
65              70              75              80
Phe Pro Phe Thr Gly Gln Pro Ala Ala Ala Pro Pro Arg Leu Gly Pro
      85              90              95
Ala Pro Gly Ala Ala Asp Arg Pro Ser Arg Val Pro Lys Ser Pro Ala
      100             105             110
Leu Ala Gln Lys Leu Gly Gln Pro Arg Asp Pro His Leu Pro Leu Pro
      115             120             125
Ile Ser Pro Leu Ser Gln Pro Pro Ser Pro
      130             135

```

<210> 3741
 <211> 562
 <212> DNA
 <213> Homo sapiens

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<400> 3741
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gtcgtgtcca ctgtggggat ccacgtcctg actaaccttg tgttcctaga aatccctcac
120
cggcagatcg gtgcctcctg aatcccaccc aaaattccca ctgggaatgt gttcctgaaa
180
gagctgcccc ggcttgagaa agcctctttt cagaccaaac ttcgtattca aagctcaaaa
240
agaactgcac acaattagga cagtcataca agatgctgcc cctaattcctg ccacaatctg
300
cgagaaggga ggcggggcct ccgagggcaa agtgcccctg ggaagggatc cgcagggaac
360
agcttttga aa ggaccacagc cccagccac gaggggagca agcacgagcc ggggagagag
420
ctctgcgctc gcacacggga ttcattctcg ccgcctctgc ccgtttccag caacacggag
480
ccaggcgga acagtttctc cageccattc gcttccccga ctcttctctt cacggcacgg
540
ctgggctgct ttcattcacg gt
562

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<210> 3742
 <211> 138
 <212> PRT
 <213> Homo sapiens

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<400> 3742
Met Gly Trp Arg Asn Cys Phe Arg Leu Ala Pro Cys Cys Trp Lys Arg
1      5      10      15
Ala Glu Ala Ala Glu Met Asn Pro Val Cys Glu Arg Arg Ala Leu Ser
      20      25      30
Pro Ala Arg Ala Cys Ser Pro Arg Gly Trp Gly Leu Trp Ser Phe Gln
      35      40      45
Ser Cys Ser Leu Arg Ile Pro Ser Gln Gly His Phe Ala Leu Gly Ser
      50      55      60
Pro Ala Ser Leu Leu Ala Asp Cys Gly Arg Ile Arg Gly Ser Ile Leu

```

```

65              70              75              80
Tyr Asp Cys Pro Asn Cys Val Gln Phe Phe Leu Ser Phe Glu Tyr Glu
              85              90              95
Val Trp Ser Glu Lys Arg Leu Ser Gln Ala Trp Ala Ala Leu Ser Gly
              100             105             110
Thr His Ser Gln Trp Glu Phe Trp Val Gly Phe Arg Arg His Arg Ser
              115             120             125
Ala Gly Glu Gly Phe Leu Gly Thr Gln Gly
              130             135

```

<210> 3743

<211> 468

<212> DNA

<213> Homo sapiens

<400> 3743

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ggcaatgcaa gctgcacagt cagtctaggg ggtgccaata tggcagagac ccacaaagcc
120
atgatcctgc aactcaatcc cagtgagaac tgcacctgga caatagaaag accagaaaaac
180
aaaagcatca gaattatctt ttcctatgtc cagcttgatc cagatggaag ctgtgaaagt
240
gaaaacatta aagtctttga cggaacctcc agcaatgggc ctctgctagg gcaagtctgc
300
agtaaaaacg actatgttcc tgtatttgaa tcatcatcca gtacattgac gtttcaaata
360
gttactgact cagcaagaat tcaaagaact gtctttgtgt tctagtagtt cttatttcct
420
aacatcttta ttccaaagtg tggcggttac ctggatccct ggaaggat
468

```

<210> 3744

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3744

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Xaa His Glu Pro Ser Tyr Lys Leu His Phe Gly Lys Ala Leu Thr Met
1              5              10              15
Ala Glu Ala Glu Gly Asn Ala Ser Cys Thr Val Ser Leu Gly Gly Ala
              20              25              30
Asn Met Ala Glu Thr His Lys Ala Met Ile Leu Gln Leu Asn Pro Ser
              35              40              45
Glu Asn Cys Thr Trp Thr Ile Glu Arg Pro Glu Asn Lys Ser Ile Arg
              50              55              60
Ile Ile Phe Ser Tyr Val Gln Leu Asp Pro Asp Gly Ser Cys Glu Ser
65              70              75              80
Glu Asn Ile Lys Val Phe Asp Gly Thr Ser Ser Asn Gly Pro Leu Leu
              85              90              95
Gly Gln Val Cys Ser Lys Asn Asp Tyr Val Pro Val Phe Glu Ser Ser
              100             105             110
Ser Ser Thr Leu Thr Phe Gln Ile Val Thr Asp Ser Ala Arg Ile Gln

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115
Arg Thr Val Phe Val Phe
130

120

125

<210> 3745
<211> 345
<212> DNA
<213> Homo sapiens

<400> 3745
acgcgtcgaa agggaagagc agaggacgct ggctctcatg gcaggatggg gtgtgtacgg
60
gacgctgtgg gagaggaaaa cagccacatg tgggctggct gcttggagga gacacatgag
120
ccgtgaacac gtctcccccg gccgctccct ggttccatgc gtgctcgtct tgggcaccac
180
gagaacacag ccatgcagcc cccgatcctg cagccacagc cacggcatcg cctggtcgga
240
tgcagcatct gtcctggacg cctctcgtg tgggtgccag gcctgccag ccaagccccg
300
attctcaggg gcggcaggag gtgggaggca cgtttgggcg gatcc
345

<210> 3746
<211> 102
<212> PRT
<213> Homo sapiens

<400> 3746
Met Ala Gly Trp Cys Val Tyr Gly Thr Leu Trp Glu Arg Lys Thr Ala
1 5 10 15
Thr Cys Gly Leu Ala Ala Trp Arg Arg His Met Ser Arg Glu His Val
20 25 30
Ser Pro Gly Arg Ser Leu Val Pro Cys Val Leu Val Leu Gly Thr Thr
35 40 45
Arg Thr Gln Pro Cys Ser Pro Arg Ser Cys Ser His Ser His Gly Ile
50 55 60
Ala Trp Ser Asp Ala Ala Ser Ala Pro Asp Ala Ser Arg Cys Arg Cys
65 70 75 80
Gln Ala Cys Gln Ala Lys Pro Arg Phe Ser Gly Ala Ala Gly Gly Gly
85 90 95
Arg His Val Trp Ala Asp
100

<210> 3747
<211> 800
<212> DNA
<213> Homo sapiens

<400> 3747
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60
cgcgccggac cctgggatgc tcttcggccg catcccgtg cgctacgcca tactggtgag
120

aagggggcgc gcccgccac tttctgctg agccccgcac cctctctggt ggtctctct
 180
 ggggcgcccc tgccaatccc cgcttcccc tcccgcatat gcagatgcgc ttcgatggac
 240
 gcctgggctt ccccgccgga ttcgtggaca cgcaggacag aagcctagag gacgggctga
 300
 accgcgagct gcgcgaggag ctgggcgaag cggctgccgc tttccgcgtg gagcgactg
 360
 actaccgcag ctcccacgtc ggggtcaggg ccacgcgttg tggcccactt ctatgccaa
 420
 cgtctgacgc tcgaggagct gttggctgtg gaggccggcg caacacgcgc caaggaccac
 480
 gggctggagg tgggaccagc ctgggactct gtccctttcc caatttcctc ttctcccaa
 540
 gctttctctc cccaagaaa gcatccctgg agaaaagtct ttgcccctct gaccttgccc
 600
 tctccccagc tttcttggtg gagttgggat cgtgatcatc tatactctga attagtactg
 660
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 720
 acacactcat ccattgtctct ctgctgttcc ctattgacag tgtgatagat tatcacatta
 780
 tctaggtgtg gcaacctagg
 800

<210> 3748

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3748

Met	Gln	Met	Arg	Phe	Asp	Gly	Arg	Leu	Gly	Phe	Pro	Gly	Gly	Phe	Val
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Asp	Thr	Gln	Asp	Arg	Ser	Leu	Glu	Asp	Gly	Leu	Asn	Arg	Glu	Leu	Arg
			20					25					30		
Glu	Glu	Leu	Gly	Glu	Ala	Ala	Ala	Phe	Arg	Val	Glu	Arg	Thr	Asp	
		35				40					45				
Tyr	Arg	Ser	Ser	His	Val	Gly	Val	Arg	Ala	Thr	Arg	Cys	Gly	Pro	Leu
	50					55					60				
Leu	Cys	Gln	Ala	Ser	Asp	Ala	Arg	Gly	Ala	Val	Gly	Cys	Gly	Gly	Arg
	65				70					75				80	
Arg	Asn	Thr	Arg	Gln	Gly	Pro	Arg	Ala	Gly	Gly	Gly	Thr	Ser	Leu	Gly
			85					90					95		
Leu	Cys	Pro	Phe	Pro	Asn	Phe	Leu	Phe	Ser	Gln	Ser	Phe	Leu	Ser	Pro
		100					105						110		
Lys	Lys	Ala	Ser	Leu	Glu	Lys	Ser	Leu	Cys	Pro	Ser	Asp	Leu	Ala	Leu
		115				120						125			
Ser	Pro	Ala	Phe	Leu	Val	Glu	Leu	Gly	Ser						
		130				135									

<210> 3749

<211> 648

<212> DNA

<213> Homo sapiens

<400> 3749

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 ccacaacagc acgagtggcc tccccctgctg cagttacggc ctgaggatgt cggcttcgac
 120
 ggctactcca tgcctcggga gggatcgaca agcaagcaga tgccccccag tgatgctgaa
 180
 ggtgaccgc tgatgaacat gctgatgagg ctgcaggagg cagccaacta ctccagcccc
 240
 cagagctatg acagcgactc caacagcaac agccatcacg atgacatctt ggactcctct
 300
 ttggagtcca ctctgtgaca ggggcccgga gccagcgcc ctctcttct cctcaccgca
 360
 ttccacctgc atccccaca tcacctgaa gatgacttcc tgagccagcc ccagccaca
 420
 gccttagagc tgcgggaaca ccgagacccc cgtccttca gcctcgacct ggggtgcaggc
 480
 atcccgggcc agctgcctgc ggaccgcttc cttccacagc gagaactgca ctaccttctg
 540
 ttgtacttta attattgttt tgccttgttg ctgtgacctc cctaagacac tgaagatact
 600
 tctcgggaaa ggatcatcgc cgttgaaatg aaaaaaaaaa aaaaaaaaa
 648

<210> 3750

<211> 105

<212> PRT

<213> Homo sapiens

<400> 3750

Arg	Ala	Pro	Trp	Glu	Asp	Pro	Ala	Lys	Trp	Val	Met	Asp	Thr	Tyr	Pro
1				5					10					15	
Trp	Ala	Ala	Ser	Pro	Gln	Gln	His	Glu	Trp	Pro	Pro	Leu	Leu	Gln	Leu
			20					25				30			
Arg	Pro	Glu	Asp	Val	Gly	Phe	Asp	Gly	Tyr	Ser	Met	Pro	Arg	Glu	Gly
		35				40					45				
Ser	Thr	Ser	Lys	Gln	Met	Pro	Pro	Ser	Asp	Ala	Glu	Gly	Asp	Pro	Leu
	50				55					60					
Met	Asn	Met	Leu	Met	Arg	Leu	Gln	Glu	Ala	Ala	Asn	Tyr	Ser	Ser	Pro
65				70					75					80	
Gln	Ser	Tyr	Asp	Ser	Asp	Ser	Asn	Ser	Asn	Ser	His	His	Asp	Asp	Ile
			85					90					95		
Leu	Asp	Ser	Ser	Leu	Glu	Ser	Thr	Leu							
			100					105							

<210> 3751

<211> 554

<212> DNA

<213> Homo sapiens

<400> 3751

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 60

cctggccccc ctgctgctcg cggtcggtc gccccgagcg gggccaaggg cgtttcctac
 120
 acgcagggcc agagtccgga gccgcggacc cgcgaggtat ttctactacg tggaccacca
 180
 gggccagctt ttcttggatg attccaaaat gaagaatttc atcacctgct tcaaagaccc
 240
 gcagtctctg gtcaccttct tctccgcct gagacccaac cgcagcgggc gctacgaggg
 300
 cgctttcccc ttctctcgc cctgcggcag agagcgcaac ttctgcgct gcgaggaccg
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 540
 ttcgccccctg gccc
 554

<210> 3752
 <211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3752
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 Pro His His Gly Pro Gly Pro Ala Ala Arg Gly Ser Val Ala Pro
 20 25 30
 Ser Gly Ala Lys Gly Val Ser Tyr Thr Gln Gly Gln Ser Pro Glu Pro
 35 40 45
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 Pro Gly
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<210> 3753
 <211> 1426
 <212> DNA
 <213> Homo sapiens

<400> 3753
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 420
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 480
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 720
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 1260
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 1320
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<210> 3754

<211> 261

<212> PRT

<213> Homo sapiens

<400> 3754

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Ser	Ala	Thr	Glu	Ser	Leu	Pro	Thr	Leu	Glu	Leu	Leu	Ser	Gln	Val	Asp
			20					25					30		
Met	Asp	Cys	Arg	Val	His	Met	Arg	Pro	Ile	Gly	Leu	Thr	Trp	Val	Leu
		35					40					45			
Gln	Leu	Thr	Leu	Ala	Trp	Ile	Leu	Leu	Glu	Ala	Cys	Gly	Gly	Ser	Arg
		50				55					60				
Pro	Leu	Gln	Ala	Arg	Ser	Gln	Gln	His	His	Gly	Leu	Ala	Ala	Asp	Leu
65					70					75				80	
Gly	Lys	Gly	Lys	Leu	His	Leu	Ala	Gly	Pro	Cys	Cys	Pro	Ser	Glu	Met

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<210> 3755
<211> 3149
<212> DNA
<213> Homo sapiens
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120
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180
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240
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420
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480
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540
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720

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1020
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1080
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2340

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<210> 3756

<211> 199

<212> PRT

<213> Homo sapiens

<400> 3756

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			20					25					30		
Ser	Glu	Glu	Thr	Thr	Ser	Asp	Asn	Asn	Thr	Ser	Ile	Thr	Thr	Pro	
	35						40				45				
Thr	Leu	Ser	Pro	Ser	Gln	Gln	Pro	Leu	Pro	Thr	Glu	Leu	Asn	Val	Thr
	50					55					60				
Ser	Pro	Ser	Lys	Glu	Glu	Cys	Gly	Pro	Cys	Thr	Asp	Thr	Ala	His	Val
65					70					75				80	
Ser	Leu	Ile	Thr	Pro	Thr	Lys	Arg	Ser	Cys	Gly	Thr	Asp	Ser	Gln	Ser
				85					90					95	
Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu	Asn	Thr
	100							105					110		
Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg	Arg	Arg
	115						120					125			
Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu	Leu	Gly
	130					135					140				
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<210> 3757
<211> 1046
<212> DNA
<213> Homo sapiens
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<210> 3758
<211> 199
<212> PRT
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<213> Homo sapiens

<400> 3758

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      20           25           30
Gly Lys Ser Gly Leu Leu Thr Ser His Thr Thr Asp Ser Leu Gln Leu
      35           40           45
Trp Phe Val Arg Leu Ala Leu Leu Val Lys Leu Gly Leu Phe Gln Asn
      50           55           60
Ala Glu Met Glu Phe Glu Pro Phe Gly Asn Leu Asp Gln Pro Asp Leu
      65           70           75           80
Tyr Ser Glu Tyr Tyr Pro His Val Tyr Pro Gly Arg Arg Gly Ser Met
      85           90           95
Val Pro Phe Ser Met Arg Ile Leu His Ala Glu Leu Gln Gln Tyr Leu
      100          105          110
Gly Asn Pro Gln Glu Ser Leu Asp Arg Leu His Lys Val Lys Thr Val
      115          120          125
Cys Ser Lys Val Gly Gly Ala Val Ile Leu Pro Cys His Gly Glu Asn
      130          135          140
Met Pro Ser Thr Pro Ser Pro Gln Asp Met Pro Val Leu Phe Pro Ala
      145          150          155          160
Arg Pro Ala Pro Cys Thr Ile Ala Ala Ser Ala Phe Arg Arg Leu Gly
      165          170          175
Asp Pro Gly Leu Cys Gly Leu Val Val Ala Leu Ala Glu Ile Phe
      180          185          190
Phe Arg Asp Gly Lys Ser Phe
      195

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<210> 3759

<211> 830

<212> DNA

<213> Homo sapiens

<400> 3759

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120
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180
gaacaagcat tgtgttttca gagaaaaaga aacctgaac attgtccttg tggggagaag
240
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300
gctccggggc cagccagtca ccaagaccag ccagagtggc aggaggacat gggacggaca
360
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420
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480
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540

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660
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720
gcccaggaaa cccagggtgaa agctctttta acaaaggta atgatctgag aaaagaaagt
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<210> 3760

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3760

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Arg	Asn	Pro	Glu	His	Cys	Pro	Cys	Gly	Glu	Lys	Arg	Asp	Trp	Glu	Glu
			20					25					30		
Cys	Asp	Arg	Glu	Leu	Tyr	Pro	Gly	Glu	Pro	Arg	Leu	His	Leu	Ser	Ala
			35					40					45		
Pro	Gly	Pro	Ala	Ser	His	Gln	Asp	Gln	Pro	Glu	Trp	Gln	Glu	Asp	Met
			50					55					60		
Gly	Arg	Thr	Gly	Gly	Gly	Gly	Cys	Gly	His	Pro	Ser	Phe	Asn	Gln	Met
65							70						75		80
Leu	Asp	Val	Lys	Gly	Pro	Ile	Pro	Val	Lys	Arg	Gly	Gly	Gln	Ala	Leu
				85					90					95	
Phe	Val	Leu	Leu												
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<210> 3761

<211> 458

<212> DNA

<213> Homo sapiens

<400> 3761

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120
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180
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240
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458

<210> 3762
 <211> 75
 <212> PRT
 <213> Homo sapiens

<400> 3762
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 20 25 30
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 Gly Gly Gly Pro Pro Gly His Pro Gly Ala Pro Arg Arg Gly Thr Pro
 50 55 60
 Glu Pro Arg Ser Leu Leu Ala Gly Pro Glu Val
 65 70 75

<210> 3763
 <211> 1340
 <212> DNA
 <213> Homo sapiens

<400> 3763
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 180
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 240
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 300
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 360
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 420
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 780
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 900

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 aatatcatgg attgtatggt ttcttaaaat ataacttgag acacgtggta tttgccagta
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 1200
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<210> 3764
 <211> 288
 <212> PRT
 <213> Homo sapiens

<400> 3764

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			20					25					30		
Ser	Pro	Arg	Cys	Ala	Ala	Thr	Met	Ala	Ser	Ser	Asp	Glu	Asp	Gly	Thr
			35				40					45			
Asn	Gly	Gly	Ala	Ser	Glu	Ala	Gly	Glu	Asp	Arg	Glu	Ala	Pro	Gly	Lys
	50					55					60				
Arg	Arg	Arg	Leu	Gly	Phe	Leu	Ala	Thr	Ala	Trp	Leu	Thr	Phe	Tyr	Asp
65					70					75				80	
Ile	Ala	Met	Thr	Ala	Gly	Trp	Leu	Val	Leu	Ala	Ile	Ala	Met	Val	Arg
			85					90						95	
Phe	Tyr	Met	Glu	Lys	Gly	Thr	His	Arg	Gly	Leu	Tyr	Lys	Ser	Ile	Gln
		100					105						110		
Lys	Thr	Leu	Lys	Phe	Phe	Gln	Thr	Phe	Ala	Leu	Leu	Glu	Ile	Val	His
		115					120					125			
Cys	Leu	Ile	Gly	Ile	Val	Pro	Thr	Ser	Val	Ile	Val	Thr	Gly	Val	Gln
	130					135					140				
Val	Ser	Ser	Arg	Ile	Phe	Met	Val	Trp	Leu	Ile	Thr	His	Ser	Ile	Lys
145					150					155				160	
Pro	Ile	Gln	Asn	Glu	Glu	Ser	Val	Val	Leu	Phe	Leu	Val	Ala	Trp	Thr
			165					170						175	
Val	Thr	Glu	Ile	Thr	Arg	Tyr	Ser	Phe	Tyr	Thr	Phe	Ser	Leu	Leu	Asp
		180						185					190		
His	Leu	Pro	Tyr	Phe	Ile	Lys	Trp	Ala	Arg	Tyr	Asn	Phe	Phe	Ile	Ile
		195					200					205			
Leu	Tyr	Pro	Val	Gly	Val	Ala	Gly	Glu	Leu	Leu	Thr	Ile	Tyr	Ala	Ala
	210					215					220				
Leu	Pro	Tyr	Val	Lys	Lys	Thr	Gly	Met	Phe	Ser	Ile	Arg	Leu	Pro	Asn
225					230					235				240	
Lys	Tyr	Asn	Val	Ser	Phe	Asp	Tyr	Tyr	Tyr	Phe	Leu	Leu	Ile	Thr	Met

				245					250					255		
Ala	Ser	Tyr	Ile	Pro	Leu	Phe	Pro	Gln	Leu	Tyr	Phe	His	Met	Leu	Arg	
			260					265					270			
Gln	Arg	Arg	Lys	Val	Leu	His	Gly	Glu	Val	Ile	Val	Glu	Lys	Asp	Asp	
		275					280					285				

<400> 3765
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240
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300
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720
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780
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900
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<400> 3766

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<212> DNA

<213> Homo sapiens

<400> 3767

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<213> Homo sapiens

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<212> DNA
<213> Homo sapiens
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<400> 3773

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<212> PRT

<213> Homo sapiens

<400> 3774

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Phe Val Pro Phe Arg Glu Leu Lys Asn Ala Ser Pro Ala Ala Leu Ala
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<213> Homo sapiens

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<213> Homo sapiens

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<400> 3778

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Arg Ser Asp Asn Asp Leu Leu Lys Leu Ile Glu Ser Thr Ser Thr Met
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Asp Gly Ala Ile Ala Ala Ala Leu Leu Met Phe Gly Asp Ala Gly Gly
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Gly Pro Arg Lys Arg Lys Leu Ser Ser Ser Ser Glu Pro Tyr Glu Glu
225          230          235          240
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Gly Glu Glu Ser Asn Glu Ser Ala Glu Ser Ser Ser Asn Trp Glu Lys
      260          265          270
Gln Glu Ser Ile Val Leu Lys Leu Gln Lys Glu Phe Pro Asn Phe Asp
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Lys Gln Glu Leu Arg Glu Val Leu Lys Glu His Glu Trp Met Tyr Thr
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Glu Ala Leu Glu Ser Leu Lys Val Phe Ala Glu Asp Gln Asp Met Gln
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Tyr Ala Ser Gln Ser Glu Val Pro Asn Gly Lys Glu Val Ser Ser Arg
      325          330          335
Ser Gln Asn Tyr Pro Lys Asn Ala Thr Lys Thr Lys Leu Lys Gln Lys
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Phe Ser Met Lys Ala Gln Asn Gly Phe Asn Lys Lys Arg Lys Lys Asn
      355          360          365
Val Phe Asn Pro Lys Arg Val Val Glu Asp Ser Glu Tyr Asp Ser Gly
  
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<211> 1853

<212> DNA

<213> Homo sapiens

<400> 3779

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<211> 530

<212> PRT

<213> Homo sapiens

<400> 3780

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Lys Glu Lys Tyr Lys Val Lys Asp Arg Ile Glu Glu Lys Thr Arg Asp			
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Gly Lys Asp Arg Gly Arg Asp Phe Glu Arg Gln Arg Glu Lys Arg Asp			
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<211> 1364

<212> DNA

<213> Homo sapiens

<400> 3781

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<213> Homo sapiens

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Cys	Thr	Gly	Gly	Asp	Ser	Tyr	His	Pro	His	Glu	Gln	Ser	Ser	Pro	Pro
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Ile	Phe	Ser	Lys	Gln	Ser	Trp	Ala	Leu	Thr	Pro	Leu	Glu	Arg	Gly	Arg
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<211> 4137

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<213> Homo sapiens

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 <211> 804
 <212> PRT
 <213> Homo sapiens

<400> 3784
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 Leu Leu Glu Arg Val Glu Glu Pro Val Leu Gln Asn Gln Ile Arg Glu
 35 40 45
 His Val Ile Ala Ile Glu Asp Ala Phe Val Asn Ser Gln Glu Trp Thr
 50 55 60
 Leu Ser Arg Ser Val Pro Glu Leu Lys Val Gly Ile Val Gly Asn Leu
 65 70 75 80
 Ala Ser Gly Lys Ser Ala Leu Val His Arg Tyr Leu Thr Gly Thr Tyr
 85 90 95
 Val Gln Glu Glu Ser Pro Glu Gly Gly Arg Phe Lys Lys Glu Ile Val
 100 105 110
 Val Asp Gly Gln Ser Tyr Leu Leu Leu Ile Arg Asp Glu Gly Gly Pro
 115 120 125
 Pro Glu Ala Gln Phe Ala Met Trp Val Asp Ala Val Ile Phe Val Phe
 130 135 140
 Ser Leu Glu Asp Glu Ile Ser Phe Gln Thr Val Tyr His Tyr Tyr Ser
 145 150 155 160
 Arg Met Ala Asn Tyr Arg Asn Thr Ser Glu Ile Pro Leu Val Leu Val
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 Gly Thr Gln Asp Ala Ile Ser Ser Ala Asn Pro Arg Val Ile Asp Asp
 180 185 190
 Ala Arg Ala Arg Lys Leu Ser Asn Asp Leu Lys Arg Cys Thr Tyr Tyr
 195 200 205
 Glu Thr Cys Ala Thr Tyr Gly Leu Asn Val Glu Arg Val Phe Gln Asp
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 Gly Pro Cys Lys Ser Leu Pro Asn Ser Pro Ser His Ser Ser Val Cys

2931

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<210> 3786

<211> 168

<212> PRT

<213> Homo sapiens

<400> 3786

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			20					25					30		
Thr	Glu	Met	Ser	Leu	His	Ala	Leu	Tyr	Met	His	Gln	Leu	His	Lys	Gln
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Gln	Ala	Gln	Ala	Glu	Pro	Glu	Arg	His	Val	Trp	His	Arg	Arg	Glu	Ser
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Asp	Glu	Ser	Gly	Glu	Ser	Ala	Pro	Asp	Glu	Gly	Gly	Glu	Gly	Ala	Arg
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Ala	Pro	Gln	Ser	Ile	Pro	Arg	Ser	Ala	Ser	Tyr	Pro	Cys	Ala	Ala	Pro
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<212> DNA
<213> Homo sapiens
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<210> 3788
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<212> PRT
<213> Homo sapiens
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<400> 3788
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Pro Trp Gly Ala Lys Cys Ser Trp Arg Gln Val Ala Lys Gly Glu His
35 40 45
Leu Gly Gln Thr Pro Gly Phe Ser Ser Arg Leu Pro His Leu Pro Ala

50	55	60
Ser Leu Leu Ser Trp Leu Ser Pro Ser Leu Leu Val Cys Asn Lys Gly		
65	70	75
Ala Ala Val Ile Thr His Glu Gln Cys Leu Ala Gln Ser Gly Arg Ser		80
	85	90
Ala Val Leu Val His Met Glu Glu Pro Lys Gln Ala Pro Cys Thr Val		95
	100	105
		110
Leu		

<210> 3789

<211> 4341

<212> DNA

<213> Homo sapiens

<400> 3789

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<210> 3790
 <211> 1092
 <212> PRT
 <213> Homo sapiens

<400> 3790

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Leu Gln Val Leu Lys Ala Gln Ser Glu Asp Pro Leu Pro Glu Leu His
 35           40           45
Glu Asp Leu His Asn Glu Lys Glu Leu Ile Lys Glu Leu Glu Gln Ser
 50           55           60
Leu Ala Ser Trp Thr Gln Asn Leu Lys Glu Leu Gln Thr Met Lys Ala
 65           70           75           80
Asp Leu Thr Arg His Val Leu Val Glu Asp Val Met Val Leu Lys Glu
 85           90           95
Gln Ile Glu His Leu His Arg Gln Trp Glu Asp Leu Cys Leu Arg Val
 100          105          110
Ala Ile Arg Lys Gln Glu Ile Glu Asp Arg Leu Asn Thr Trp Val Val
 115          120          125
Phe Asn Glu Lys Asn Lys Glu Leu Cys Ala Trp Leu Val Gln Met Glu
 130          135          140
Asn Lys Val Leu Gln Thr Val Asp Ile Ser Ile Glu Glu Met Ile Glu
 145          150          155          160
Lys Leu Gln Lys Asp Cys Met Glu Glu Ile Asn Leu Phe Ser Glu Asn
 165          170          175
Lys Leu Gln Leu Lys Gln Met Gly Asp Gln Leu Ile Lys Ala Ser Asn
 180          185          190
Lys Ser Arg Ala Ala Glu Ile Asp Asp Lys Leu Asn Lys Ile Asn Asp
 195          200          205
Arg Trp Gln His Leu Phe Asp Val Ile Gly Ser Arg Val Lys Lys Leu
 210          215          220
Lys Glu Thr Phe Ala Phe Ile Gln Gln Leu Asp Lys Asn Met Ser Asn
 225          230          235          240
Leu Arg Thr Trp Leu Ala Arg Ile Glu Ser Glu Leu Ser Lys Pro Val
 245          250          255
Val Tyr Asp Val Cys Asp Asp Gln Glu Ile Gln Lys Arg Leu Ala Glu
 260          265          270
Gln Gln Asp Leu Gln Arg Asp Ile Glu Gln His Ser Ala Gly Val Glu
 275          280          285
Ser Val Phe Asn Ile Cys Asp Val Leu Leu His Asp Ser Asp Ala Cys
 290          295          300
Ala Asn Glu Thr Glu Cys Asp Ser Ile Gln Gln Thr Thr Arg Ser Leu
 305          310          315          320
Asp Arg Arg Trp Arg Asn Ile Cys Ala Met Ser Met Glu Arg Arg Met
 325          330          335
Lys Ile Glu Glu Thr Trp Arg Leu Trp Gln Lys Phe Leu Asp Asp Tyr
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Ser Arg Phe Glu Asp Trp Leu Lys Ser Ala Glu Arg Thr Ala Ala Cys
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Pro Asn Ser Ser Glu Val Leu Tyr Thr Ser Ala Lys Glu Glu Leu Lys

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	405		410	415
Asp Thr Ala Ser Arg Leu Lys Gln Met Val His Glu Gly Asn Gln Arg				
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Trp Asp Asn Leu Gln Arg Arg Val Thr Ala Val Leu Arg Arg Leu Arg				
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His Phe Thr Asn Gln Arg Glu Glu Phe Glu Gly Thr Arg Glu Ser Ile				
	450		455	460
Leu Val Trp Leu Thr Glu Met Asp Leu Gln Leu Thr Asn Val Glu His				
465		470		475
Phe Ser Glu Ser Asp Ala Asp Asp Lys Met Arg Gln Leu Asn Gly Phe				
	485		490	495
Gln Gln Glu Ile Thr Leu Asn Thr Asn Lys Ile Asp Gln Leu Ile Val				
	500		505	510
Phe Gly Glu Gln Leu Ile Gln Lys Ser Glu Pro Leu Asp Ala Val Leu				
	515		520	525
Ile Glu Asp Glu Leu Glu Glu Leu His Arg Tyr Cys Gln Glu Val Phe				
	530		535	540
Gly Arg Val Ser Arg Phe His Arg Arg Leu Thr Ser Cys Thr Pro Gly				
545		550		555
Leu Glu Asp Glu Lys Glu Ala Ser Glu Asn Glu Thr Asp Met Glu Asp				
	565		570	575
Pro Arg Glu Ile Gln Thr Asp Ser Trp Arg Lys Arg Gly Glu Ser Glu				
	580		585	590
Glu Pro Ser Ser Pro Gln Ser Leu Cys His Leu Val Ala Pro Gly His				
	595		600	605
Glu Arg Ser Gly Cys Glu Thr Pro Val Ser Val Asp Ser Ile Pro Leu				
	610		615	620
Glu Trp Asp His Thr Gly Asp Val Gly Gly Ser Ser Ser His Glu Glu				
625		630		635
Asp Glu Glu Gly Pro Tyr Tyr Ser Ala Leu Ser Gly Lys Ser Ile Ser				
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Asp Gly His Ser Trp His Val Pro Asp Ser Pro Ser Cys Pro Glu His				
	660		665	670
His Tyr Lys Gln Met Glu Gly Asp Arg Asn Val Pro Pro Val Pro Pro				
	675		680	685
Ala Ser Ser Thr Pro Tyr Lys Pro Pro Tyr Gly Lys Leu Leu Leu Pro				
	690		695	700
Pro Gly Thr Asp Gly Gly Lys Glu Gly Pro Arg Val Leu Asn Gly Asn				
705		710		715
Pro Gln Gln Glu Asp Gly Gly Leu Ala Gly Ile Thr Glu Gln Gln Ser				
	725		730	735
Gly Ala Phe Asp Arg Trp Glu Met Ile Gln Ala Gln Glu Leu His Asn				
	740		745	750
Lys Leu Lys Ile Lys Gln Asn Leu Gln Gln Leu Asn Ser Asp Ile Ser				
	755		760	765
Ala Ile Thr Thr Trp Leu Lys Lys Thr Glu Ala Glu Leu Glu Met Leu				
	770		775	780
Lys Met Ala Lys Pro Pro Ser Asp Ile Gln Glu Ile Glu Leu Arg Val				
785		790		795
Lys Arg Leu Gln Glu Ile Leu Lys Ala Phe Asp Thr Tyr Lys Ala Leu				800

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 Val Val Ser Val Asn Val Ser Ser Lys Glu Phe Leu Gln Thr Glu Ser
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 Pro Glu Ser Thr Glu Leu Gln Ser Arg Leu Arg Gln Leu Ser Leu Leu
 835 840 845
 Trp Glu Ala Ala Gln Gly Ala Val Asp Ser Trp Arg Gly Gly Leu Arg
 850 855 860
 Gln Ser Leu Met Gln Cys Gln Asp Phe His Gln Leu Ser Gln Asn Leu
 865 870 875 880
 Leu Leu Trp Leu Ala Ser Ala Lys Asn Arg Arg Gln Lys Ala His Val
 885 890 895
 Thr Asp Pro Lys Ala Asp Pro Arg Ala Leu Leu Glu Cys Arg Arg Glu
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 Leu Met Gln Leu Glu Lys Glu Leu Val Glu Arg Gln Pro Gln Val Asp
 915 920 925
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 Asp Cys Ile Glu Ala Glu Glu Lys Val His Val Ile Glu Lys Lys Leu
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 Lys Gln Leu Arg Glu Gln Val Ser Gln Asp Leu Met Ala Leu Gln Gly
 965 970 975
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 Asn Asn Phe Ala Arg Ser Phe Tyr Pro Met Leu Arg Tyr Thr Asn Gly
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 Pro Pro Pro Thr
 1090

<210> 3791

<211> 1011

<212> DNA

<213> Homo sapiens

<400> 3791

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tgaaccttct ttaaaccattt agcctcttcc tctcctgct tttcccgc tttccgttcc
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 660
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 780
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 840
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 900
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<210> 3792

<211> 288

<212> PRT

<213> Homo sapiens

<400> 3792

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			20					25					30		
Ala	Leu	Ser	Met	Gly	Gly	Lys	Val	Pro	Val	Ser	Glu	Gly	Leu	Glu	His
		35				40						45			
Ser	Asp	Leu	Pro	Asp	Gly	Thr	Gly	Glu	Phe	Leu	Asp	Ala	Trp	Leu	Met
	50					55					60				
Leu	Val	Glu	Lys	Met	Val	Asn	Pro	Thr	Thr	Val	Leu	Glu	Ser	Pro	His
65					70					75				80	
Ser	Leu	Pro	Ala	Lys	Leu	Pro	Gly	Gly	Val	Gln	Asn	Phe	Pro	Gln	Phe
			85						90				95		
Ser	Ala	Leu	Arg	Phe	Leu	Val	Val	Thr	Gln	Lys	Ala	Ala	Phe	Thr	Cys
			100					105					110		
Ile	Lys	Asn	Leu	Trp	Asn	Arg	Lys	Pro	Leu	Lys	Val	Tyr	Gly	Gly	Arg
	115					120						125			
Met	Ala	Glu	Ser	Met	Leu	Ala	Ile	Leu	Cys	His	Ile	Leu	Arg	Gly	Glu
	130					135					140				
Pro	Val	Ile	Arg	Glu	Arg	Leu	Ser	Lys	Glu	Lys	Glu	Gly	Ser	Arg	Gly
145				150					155					160	
Glu	Glu	Asp	Thr	Gly	Gln	Glu	Glu	Gly	Gly	Ser	Arg	Arg	Glu	Pro	Gln
				165					170					175	
Val	Asn	Gln	Gln	Gln	Leu	Gln	Gln	Leu	Met	Asp	Met	Gly	Phe	Thr	Arg

	180		185		190
Glu His Ala Met Glu Ala Leu Leu Asn Thr Ser Thr Met Glu Gln Ala					
195		200		205	
Thr Glu Tyr Leu Leu Thr His Pro Pro Pro Ile Met Gly Gly Val Val					
210		215		220	
Arg Asp Leu Ser Met Ser Glu Glu Asp Gln Met Met Arg Ala Ile Ala					
225		230		235	240
Met Ser Leu Gly Gln Asp Ile Pro Met Asp Gln Arg Ala Glu Ser Pro					
	245		250		255
Glu Glu Val Ala Cys Arg Lys Glu Glu Glu Glu Arg Lys Ala Arg Glu					
	260		265		270
Lys Gln Glu Glu Glu Glu Ala Lys Cys Leu Lys Lys Val Gln Gly Cys					
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<210> 3793
 <211> 360
 <212> DNA
 <213> Homo sapiens

<400> 3793
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<210> 3794
 <211> 96
 <212> PRT
 <213> Homo sapiens

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Cys Val Phe Ile Phe Gln Ile Thr Gly Arg Phe Leu Gly Leu Cys Tyr	
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Phe Val Pro Gly Arg Asn Asn Ser Phe Phe Phe Ser Trp Arg Gln Cys	
35	45
Phe Thr Leu Val Ala Gln Ala Gly Gly Gln Trp Arg Asp Leu Ser Ser	
50	60
Leu Gln Pro Pro Pro Phe Gly Leu Lys Arg Phe Ser Cys Leu Ser Leu	
65	80
Pro Ser Ser Trp Asp Tyr Arg His Ala Ser Pro Cys Thr Met Pro Asp	
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<210> 3795
 <211> 1341

<212> DNA

<213> Homo sapiens

<400> 3795

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120
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240
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<210> 3796

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3796

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      20           25           30
Pro Asn Gln Leu Tyr Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val
      35           40           45
Val Asp Arg Glu Arg Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly
      50           55           60
Phe Pro Ile Ile Phe His Gly Val Met Gly Lys Asp Glu Arg Glu Gly
      65           70           75           80
Asn Ser Pro Ser Phe Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser
      85           90           95
Tyr Leu Lys Leu Leu Leu Ala Pro Ser Ser Lys Lys Gly Lys Ala Arg
      100          105          110
Leu Ser Pro Arg Ser Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val
      115          120          125
Glu Lys Ile Arg Tyr Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly
      130          135          140
Leu Asp Asp Ile Lys Asp Leu Lys Val Gly Ser Val Glu Glu Phe Gln
      145          150          155          160
Gly Gln Glu Arg Ser Val Ile Leu Ile Ser Thr Val Arg Ser Ser Gln
      165          170          175
Ser Phe Val Gln Leu Asp Leu Asp Phe Asn Leu Gly Phe Leu Lys Asn
      180          185          190
Pro Lys Arg Phe Asn Val Ala Val Thr Arg Ala Lys Ala Leu Leu Ile
      195          200          205
Ile Val Gly Asn Pro Leu Leu Leu Gly His Asp Pro Asp Trp Lys Val
      210          215          220
Phe Leu Glu Phe Cys Lys Glu Asn Gly Gly Tyr Thr Gly Cys Pro Phe
      225          230          235          240
Pro Ala Lys Leu Asp Leu Gln Gln Gly Gln Asn Leu Leu Gln Gly Leu
      245          250          255
Ser Lys Leu Ser Pro Ser Thr Ser Gly Pro His Ser His Asp Tyr Leu
      260          265          270
Pro Gln Glu Arg Glu Gly Glu Gly Gly Leu Ser Leu Gln Val Glu Pro
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Glu Trp Arg Asn Glu Leu
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<210> 3797

<211> 1970

<212> DNA

<213> Homo sapiens

<400> 3797

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ggggtgttcg tgcgctacga cttcgaggcc gacgcccact ggtggtcaga gaggacgcac
180

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<210> 3798

<211> 473

<212> PRT

<213> Homo sapiens

<400> 3798

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			20					25					30		
His	Trp	Trp	Ser	Glu	Arg	Thr	His	Lys	Asn	Leu	Ser	Asp	Met	Glu	Asn
		35					40					45			
Glu	Phe	Tyr	Tyr	Arg	Tyr	Pro	Ser	Phe	Gln	Asp	Val	His	Val	Met	Val
	50					55					60				
Phe	Val	Gly	Phe	Gly	Phe	Leu	Met	Thr	Phe	Leu	Gln	Arg	Tyr	Gly	Phe
65					70					75				80	
Ser	Ala	Val	Gly	Phe	Asn	Phe	Leu	Leu	Ala	Ala	Phe	Gly	Ile	Gln	Trp
				85					90					95	
Ala	Leu	Leu	Met	Gln	Gly	Trp	Phe	His	Phe	Leu	Gln	Asp	Arg	Tyr	Ile
			100					105					110		
Val	Val	Gly	Val	Glu	Asn	Leu	Ile	Asn	Ala	Asp	Phe	Cys	Val	Ala	Ser
		115					120					125			
Val	Cys	Val	Ala	Phe	Gly	Ala	Val	Leu	Gly	Lys	Val	Ser	Pro	Ile	Gln
	130					135					140				
Leu	Leu	Ile	Met	Thr	Phe	Phe	Gln	Val	Thr	Leu	Phe	Ala	Val	Asn	Glu
145					150					155				160	
Phe	Ile	Leu	Leu	Asn	Leu	Leu	Lys	Val	Lys	Asp	Ala	Gly	Gly	Ser	Met
				165					170					175	
Thr	Ile	His	Thr	Phe	Gly	Ala	Tyr	Phe	Gly	Leu	Thr	Val	Thr	Arg	Ile
			180					185					190		
Leu	Tyr	Arg	Arg	Asn	Leu	Glu	Gln	Ser	Lys	Glu	Arg	Gln	Asn	Ser	Val
	195					200						205			
Tyr	Gln	Ser	Asp	Leu	Phe	Ala	Met	Ile	Gly	Thr	Leu	Phe	Leu	Trp	Met
	210					215					220				
Tyr	Trp	Pro	Ser	Phe	Asn	Ser	Ala	Ile	Ser	Tyr	His	Gly	Asp	Ser	Gln
225					230					235				240	
His	Arg	Ala	Ala	Ile	Asn	Thr	Tyr	Cys	Ser	Leu	Ala	Ala	Cys	Val	Leu
				245					250					255	
Thr	Ser	Val	Ala	Ile	Ser	Ser	Ala	Leu	His	Lys	Lys	Gly	Lys	Leu	Asp
			260					265					270		
Met	Val	His	Ile	Gln	Asn	Ala	Thr	Leu	Ala	Gly	Gly	Val	Ala	Val	Gly
		275					280					285			
Thr	Ala	Ala	Glu	Met	Met	Leu	Met	Pro	Tyr	Gly	Ala	Leu	Ile	Ile	Gly
	290					295					300				
Phe	Val	Cys	Gly	Ile	Ile	Ser	Thr	Leu	Gly	Phe	Val	Tyr	Leu	Thr	Pro
305					310					315				320	
Phe	Leu	Glu	Ser	Arg	Leu	His	Ile	Gln	Asp	Thr	Cys	Gly	Ile	Asn	Asn

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          340          345          350
Ala Ala Ser Ala Ser Leu Glu Val Tyr Gly Lys Glu Gly Leu Val His
          355          360          365
Ser Phe Asp Phe Gln Gly Phe Asn Gly Asp Trp Thr Ala Arg Thr Gln
          370          375          380
Gly Lys Phe Gln Ile Tyr Gly Leu Leu Val Thr Leu Ala Met Ala Leu
385          390          395          400
Met Gly Gly Ile Ile Val Gly Leu Ile Leu Arg Leu Pro Phe Trp Gly
          405          410          415
Gln Pro Ser Asp Glu Asn Cys Phe Glu Asp Ala Val Tyr Trp Glu Met
          420          425          430
Pro Glu Gly Asn Ser Thr Val Tyr Ile Pro Glu Asp Pro Thr Phe Lys
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Pro Ser Gly Pro Ser Val Pro Ser Val Pro Met Val Ser Pro Leu Pro
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Met Ala Ser Ser Val Pro Leu Val Pro
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<210> 3799

<211> 210

<212> DNA

<213> Homo sapiens

<400> 3799

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210

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<210> 3800

<211> 70

<212> PRT

<213> Homo sapiens

<400> 3800

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20     25     30
Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser Ser
35     40     45
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<210> 3801

<211> 4070

<212> DNA

<213> Homo sapiens

<400> 3801

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<210> 3802

<211> 476

<212> PRT

<213> Homo sapiens

<400> 3802

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Pro	Glu	Ile	Gln	Lys	Pro	Glu	Arg	Lys	Ile	Gln	Phe	Lys	Glu	Lys	Val
			20					25					30		
Leu	Trp	Thr	Ala	Ile	Thr	Leu	Phe	Ile	Phe	Leu	Val	Cys	Cys	Gln	Ile
		35					40					45			
Pro	Leu	Phe	Gly	Ile	Met	Ser	Ser	Asp	Ser	Ala	Asp	Pro	Phe	Tyr	Trp
	50					55					60				
Met	Arg	Val	Ile	Leu	Ala	Ser	Asn	Arg	Gly	Thr	Leu	Met	Glu	Leu	Gly
65				70						75				80	
Ile	Ser	Pro	Ile	Val	Thr	Ser	Gly	Leu	Ile	Met	Gln	Leu	Leu	Ala	Gly
			85					90						95	
Ala	Lys	Ile	Ile	Glu	Val	Gly	Asp	Thr	Pro	Lys	Asp	Arg	Ala	Leu	Phe
			100					105					110		
Asn	Gly	Ala	Gln	Lys	Leu	Phe	Gly	Met	Ile	Ile	Thr	Ile	Gly	Gln	Ser

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      115      120      125
Ile Val Tyr Val Met Thr Gly Met Tyr Gly Asp Pro Ser Glu Met Gly
  130      135      140
Ala Gly Ile Cys Leu Leu Ile Ile Ile Gln Leu Phe Val Ala Gly Leu
  145      150      155      160
Ile Val Leu Leu Leu Asp Glu Leu Leu Gln Lys Gly Tyr Gly Leu Gly
      165      170      175
Ser Gly Ile Ser Leu Phe Ile Ala Thr Asn Ile Cys Glu Thr Ile Val
      180      185      190
Trp Lys Ala Phe Ser Pro Thr Thr Ile Asn Thr Gly Arg Gly Thr Glu
      195      200      205
Phe Glu Gly Ala Val Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr
      210      215      220
Asp Lys Val Arg Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro
  225      230      235      240
Asn Leu Met Asn Leu Ile Ala Thr Ile Phe Val Phe Ala Val Val Ile
      245      250      255
Tyr Phe Gln Gly Phe Arg Val Asp Leu Pro Ile Lys Ser Ala Arg Tyr
      260      265      270
Arg Gly Gln Tyr Asn Thr Tyr Pro Ile Lys Leu Phe Tyr Thr Ser Asn
      275      280      285
Ile Pro Ile Ile Leu Gln Ser Ala Leu Val Ser Asn Leu Tyr Val Ile
      290      295      300
Ser Gln Met Leu Ser Ala Arg Phe Ser Gly Asn Phe Leu Val Asn Leu
  305      310      315      320
Leu Gly Gln Trp Ser Asp Thr Ser Ser Gly Gly Pro Ala Arg Ala Tyr
      325      330      335
Pro Val Gly Gly Leu Cys Tyr Tyr Leu Ser Pro Pro Glu Ser Phe Gly
      340      345      350
Ser Val Leu Glu Asp Pro Val His Ala Val Val Tyr Ile Val Phe Met
      355      360      365
Leu Gly Ser Cys Ala Phe Phe Ser Lys Thr Trp Ile Glu Val Ser Gly
      370      375      380
Ser Ser Ala Lys Asp Val Ala Lys Gln Leu Lys Glu Gln Gln Met Val
  385      390      395      400
Met Arg Gly His Arg Glu Thr Ser Met Val His Glu Leu Asn Arg Tyr
      405      410      415
Ile Pro Thr Ala Ala Ala Phe Gly Gly Leu Cys Ile Gly Ala Leu Ser
      420      425      430
Val Leu Ala Asp Phe Leu Gly Ala Ile Gly Ser Gly Thr Gly Ile Leu
      435      440      445
Leu Ala Val Thr Ile Ile Tyr Gln Tyr Phe Glu Ile Phe Val Lys Glu
      450      455      460
Gln Ser Glu Val Gly Ser Met Gly Ala Leu Leu Phe
  465      470      475

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<210> 3803

<211> 345

<212> DNA

<213> Homo sapiens

<400> 3803

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 120
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 180
 gaagcttatt cacgtatgag tcatgcattg gaagagatta aaaaattcct ggttcctgac
 240
 tacaatgatg aaattcgtca ggaacaacta cgtgaattat cttacttaaa tggctcagag
 300
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 345

<210> 3804

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3804

Pro	Arg	Gly	Asn	Ser	Leu	Lys	Arg	Leu	Gln	Glu	Glu	Thr	Gly	Ala	Lys
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Met	Ser	Ile	Leu	Gly	Lys	Gly	Ser	Met	Arg	Asp	Lys	Ala	Lys	Glu	Glu
			20				25						30		
Glu	Leu	Arg	Lys	Ser	Gly	Glu	Ala	Lys	Tyr	Ala	His	Leu	Ser	Asp	Glu
		35				40					45				
Leu	His	Val	Leu	Ile	Glu	Val	Phe	Ala	Pro	Pro	Gly	Glu	Ala	Tyr	Ser
	50				55					60					
Arg	Met	Ser	His	Ala	Leu	Glu	Glu	Ile	Lys	Lys	Phe	Leu	Val	Pro	Asp
65				70					75					80	
Tyr	Asn	Asp	Glu	Ile	Arg	Gln	Glu	Gln	Leu	Arg	Glu	Leu	Ser	Tyr	Leu
			85				90						95		
Asn	Gly	Ser	Glu	Asp	Ser	Gly	Arg	Gly	Arg	Gly	Ile	Arg	Gly	Arg	Gly
			100				105						110		
Ile	Arg	Ile													
			115												

<210> 3805

<211> 1923

<212> DNA

<213> Homo sapiens

<400> 3805

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 120
 aagagcccgt tgcctaccag atgccaggcc ctgtgcttcc tctgccttt gaggttttgg
 180
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 420

tcacagccct accgcctggt gcacttcgag cctcacatgc gaccgagacg tcctcatcaa
480
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540
atcctttctg aggcgtcgct ggccgatctc aactccaggc tagagaagaa agttaagca
600
accaacttca ggccaatat tgtaatttca ggatgcgatg tctatgcaga ggattcttgg
660
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720
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1920
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1923

<210> 3806

<211> 280
 <212> PRT
 <213> Homo sapiens

<400> 3806

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Asp Lys Ser Pro Leu Pro Thr Arg Cys Gln Ala Leu Cys Phe Leu Leu
      20           25           30
Pro Leu Arg Phe Trp Leu Val Ile Asn Gln Glu Gly Asn Met Val Thr
      35           40           45
Ala Arg Gln Glu Pro Arg Leu Val Leu Ile Ser Leu Thr Cys Asp Gly
      50           55           60
Asp Thr Leu Thr Leu Ser Ala Ala Tyr Thr Lys Asp Leu Leu Leu Pro
      65           70           75           80
Ile Lys Thr Pro Thr Thr Asn Ala Val His Lys Cys Arg Val His Gly
      85           90           95
Leu Glu Ile Glu Gly Arg Asp Cys Gly Glu Ala Ala Ala Gln Trp Ile
      100          105          110
Thr Ser Phe Leu Lys Ser Gln Pro Tyr Arg Leu Val His Phe Glu Pro
      115          120          125
His Met Arg Pro Arg Arg Pro His Gln Ile Ala Asp Leu Phe Arg Pro
      130          135          140
Lys Asp Gln Ile Ala Tyr Ser Asp Thr Ser Pro Phe Leu Ile Leu Ser
      145          150          155          160
Glu Ala Ser Leu Ala Asp Leu Asn Ser Arg Leu Glu Lys Lys Val Lys
      165          170          175
Ala Thr Asn Phe Arg Pro Asn Ile Val Ile Ser Gly Cys Asp Val Tyr
      180          185          190
Ala Glu Asp Ser Trp Asp Glu Leu Leu Ile Gly Asp Val Glu Leu Lys
      195          200          205
Arg Val Met Ala Cys Ser Arg Cys Ile Leu Thr Thr Val Asp Pro Asp
      210          215          220
Thr Gly Val Met Ser Arg Lys Glu Pro Leu Glu Thr Leu Lys Ser Tyr
      225          230          235          240
Arg Gln Cys Asp Pro Ser Glu Arg Lys Leu Tyr Gly Lys Ser Pro Leu
      245          250          255
Phe Gly Gln Tyr Phe Val Leu Glu Asn Pro Gly Thr Ile Lys Val Gly
      260          265          270
Asp Pro Val Tyr Leu Leu Gly Gln
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<210> 3807
 <211> 372
 <212> DNA
 <213> Homo sapiens

<400> 3807

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caggagggtc gcttcccggt gctcagctac caccgggtc ccagcggcag agggagcgcg
180

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ccctccccac gctccgcccc tgggtggctg cgtcctttct gggccttttc tttttggccc
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<210> 3808

<211> 85

<212> PRT

<213> Homo sapiens

<400> 3808

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Arg	Tyr	Pro	Arg	Ala	Val	Ile	Val	Pro	Tyr	Leu	Val	Asp	Asp	Asp	Ala
			20					25				30			
Leu	Ala	Arg	Ser	Ala	Arg	Phe	Arg	Gln	Gly	Gly	Arg	Phe	Pro	Val	Leu
		35				40					45				
Ser	Tyr	His	Pro	Ala	Pro	Ser	Gly	Arg	Gly	Ser	Ala	Pro	Ser	Pro	Arg
	50					55				60					
Ser	Ala	Pro	Gly	Trp	Leu	Arg	Pro	Phe	Trp	Ala	Phe	Ser	Phe	Trp	Pro
65					70				75					80	
Gly	Gln	Phe	Ala	Ala											
					85										

<210> 3809

<211> 1221

<212> DNA

<213> Homo sapiens

<400> 3809

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 120
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 180
 tggtagacac ttctccttct tttcatctgg tatcatgtat catctctcag atccaataag
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 360
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 420
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 480
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 540
 acagccaaca gtcctctgag ctccagcgtc tggcatagaa gtgccacaac gcgtggccct
 600

gacccgacgt gggagctgcg gtagtcagtg cgctccacgc ggaaagcggc agccgcttcg
 660
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 720
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 780
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<210> 3810

<211> 97

<212> PRT

<213> Homo sapiens

<400> 3810

Ala	Gly	Ile	Leu	Arg	Pro	Glu	Ile	Glu	Pro	Asp	Cys	Ser	Ser	Pro	Lys
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Ser	Trp	Arg	Ala	Ser	Ser	Asn	Cys	Ser	Arg	Ala	Glu	Pro	Ile	Lys	Glu
			20					25					30		
Phe	Ser	Arg	Lys	Val	Gly	Arg	Pro	Pro	Thr	Pro	Ser	Arg	Arg	Val	Tyr
		35				40					45				
Arg	Gly	Thr	Arg	Thr	Arg	Pro	Ser	Thr	Ser	Ser	Pro	Trp	Ser	Leu	Ala
	50				55					60					
Arg	Val	Ala	Pro	Ala	Ser	Thr	Ala	Asn	Ser	Ser	Ser	Ser	Ser	Asp	Ala
65				70					75					80	
Trp	His	Arg	Ser	Ala	Thr	Thr	Arg	Gly	Pro	Asp	Pro	Thr	Trp	Glu	Leu
			85						90					95	

Arg

<210> 3811

<211> 296

<212> DNA

<213> Homo sapiens

<400> 3811

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 120

acaccacgcc agatatctgg gcagcagggga catctgacct ggggtgcttg ctggcagcac
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 296

<210> 3812

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3812

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Pro	Val	Leu	Lys	Ala	Gln	Asn	Cys	Arg	Pro	Ser	Gly	Arg	Pro	Val	Leu
			20					25					30		
Pro	Tyr	Gln	Arg	Thr	Pro	Arg	Gln	Ile	Ser	Gly	Gln	Gln	Gly	His	Leu
		35					40					45			
Thr	Trp	Gly	Ala	Cys	Trp	Gln	His	Cys	Leu	Asp	Ser	Arg	Ala	Ser	Leu
	50					55				60					
Gly	Pro	Pro	Pro	Asn	Pro	Ala	Arg	Glu	Arg	Leu	Lys	Ala	Cys	Pro	Pro
65					70					75				80	
Cys	Trp	Ala	Trp	Val	Gly	Arg	Ser	Gly	Thr	Gly	Pro	Ser	Arg		
				85					90						

<210> 3813

<211> 1419

<212> DNA

<213> Homo sapiens

<400> 3813

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 180
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 660

cctatgctgg agcgaattca cttgattcga aaagatgtgc ctatcactat gatctacggg
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<210> 3814

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3814

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Gln	Asn	Asp	Arg	Thr	Pro	Leu	Val	Met	Val	His	Gly	Phe	Gly	Gly	Gly
			20					25					30		
Val	Gly	Leu	Trp	Ile	Leu	Asn	Met	Asp	Ser	Leu	Ser	Ala	Arg	Arg	Thr
		35					40					45			
Leu	His	Thr	Phe	Asp	Leu	Leu	Gly	Phe	Gly	Arg	Ser	Ser	Arg	Pro	Ala
	50					55					60				
Phe	Pro	Arg	Asp	Pro	Glu	Gly	Ala	Glu	Asp	Glu	Phe	Val	Thr	Ser	Ile
65					70				75						80
Glu	Thr	Trp	Arg	Glu	Thr	Met	Gly	Ile	Pro	Ser	Met	Ile	Leu	Leu	Gly
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<213> Homo sapiens

<400> 3815

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<212> PRT

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<212> PRT

<213> Homo sapiens

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 Ile Arg Lys Leu Arg Gln Asp Ile Leu Leu Met Lys Pro Tyr Phe Ile
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<213> Homo sapiens

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Ser Gly Ser Lys Thr Lys Phe Cys Val Asn Glu Leu Gln Asn Ser Arg		95
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<213> Homo sapiens

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65           70           75           80
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<210> 3834

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3834

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		20						25					30		
Val	Ser	Val	Cys	Asp	His	Cys	Lys	Gly	Lys	Met	Gln	Leu	Val	Ala	Asp
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Ala	Ser	Ser	Gly	Ala	Gly	Ala	Glu	Ser	Phe	Glu	Gln	Gly	Arg	Asp	Thr
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Ser	Gln	Leu	Asn	Met	Gly	Arg	Phe	Gly	Glu	Ala	Gly	Asp	Ser	Leu	Val
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Glu	Leu	Gly	Asp	Leu	Val	Val	Ser	Leu	Thr	Glu	Cys	Ser	Ala	His	Ala
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			165						170					175	
Gln	Leu	Leu	Leu	Glu	Val	Ser	Gln	Gly	Leu	Ser	Arg	Asn	Leu	Lys	Phe
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		275					280					285			
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His Arg Glu Arg	Leu Arg Asn Ser Ala Cys Ala Val Ser Glu Gly Cys			
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<210> 3835

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 3835

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<210> 3836

<211> 479

<212> PRT

<213> Homo sapiens

<400> 3836

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Glu	Leu	Met	Arg	Ala	Gly	Leu	Val	Val	Ser	Arg	Asp	Gly	Ala	Pro	Asp
			20					25					30		
Gly	Gly	Ile	Glu	Gln	Met	Gly	Leu	Ala	Met	Glu	His	Gly	Gly	Ser	Tyr

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<210> 3837

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 3837

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<210> 3838

<211> 468

<212> PRT

<213> Homo sapiens

<400> 3838

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			20				25						30		
Ser	His	Leu	Pro	Pro	Glu	His	Ser	Asp	Val	Val	Ile	Val	Gly	Gly	Gly
		35				40						45			
Val	Leu	Gly	Leu	Ser	Val	Ala	Tyr	Trp	Leu	Lys	Lys	Leu	Glu	Ser	Arg
	50					55					60				
Arg	Gly	Ala	Ile	Arg	Val	Leu	Val	Val	Glu	Arg	Asp	His	Thr	Tyr	Ser
65					70					75				80	
Gln	Ala	Ser	Thr	Gly	Leu	Ser	Val	Gly	Gly	Ile	Cys	Gln	Gln	Phe	Ser
				85					90					95	
Leu	Pro	Glu	Asn	Ile	Gln	Leu	Ser	Leu	Phe	Ser	Ala	Ser	Phe	Leu	Arg
			100					105					110		
Asn	Ile	Asn	Glu	Tyr	Leu	Ala	Val	Val	Asp	Ala	Pro	Pro	Leu	Asp	Leu
		115					120						125		
Arg	Phe	Asn	Pro	Ser	Gly	Tyr	Leu	Leu	Leu	Ala	Ser	Glu	Lys	Asp	Ala
	130					135					140				
Ala	Ala	Met	Glu	Ser	Asn	Val	Lys	Val	Gln	Arg	Gln	Glu	Gly	Ala	Lys
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Val	Ser	Leu	Met	Ser	Pro	Asp	Gln	Leu	Arg	Asn	Lys	Phe	Pro	Trp	Ile
				165					170					175	
Asn	Thr	Glu	Gly	Val	Ala	Leu	Ala	Ser	Tyr	Gly	Met	Glu	Asp	Glu	Gly

180 185 190
 Trp Phe Asp Pro Trp Cys Leu Leu Gln Gly Leu Arg Arg Lys Val Gln
 195 200 205
 Ser Leu Gly Val Leu Phe Cys Gln Gly Glu Val Thr Arg Phe Val Ser
 210 215 220
 Ser Ser Gln Arg Met Leu Thr Thr Asp Asp Lys Ala Val Val Leu Lys
 225 230 235 240
 Arg Ile His Glu Val His Val Lys Met Asp Arg Ser Leu Glu Tyr Gln
 245 250 255
 Pro Val Glu Cys Ala Ile Val Ile Asn Ala Ala Gly Ala Trp Ser Ala
 260 265 270
 Gln Ile Ala Leu Ala Gly Val Gly Glu Gly Pro Pro Gly Thr Leu
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 Gln Gly Thr Lys Leu Pro Val Glu Pro Arg Lys Arg Tyr Val Tyr Val
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 Trp His Cys Pro Gln Gly Pro Gly Leu Glu Thr Pro Leu Val Ala Asp
 305 310 315 320
 Thr Ser Gly Ala Tyr Phe Arg Arg Glu Gly Leu Gly Ser Asn Tyr Leu
 325 330 335
 Gly Gly Arg Ser Pro Thr Glu Gln Glu Glu Pro Asp Pro Ala Asn Leu
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 Glu Val Asp His Asp Phe Phe Gln Asp Lys Val Trp Pro His Leu Ala
 355 360 365
 Leu Arg Val Pro Ala Phe Glu Thr Leu Lys Cys Phe Val His Pro Gln
 370 375 380
 Val Gln Ser Ala Trp Ala Gly Tyr Tyr Asp Tyr Asn Thr Phe Asp Gln
 385 390 395 400
 Asn Gly Val Val Gly Pro His Pro Leu Val Val Asn Met Tyr Phe Ala
 405 410 415
 Thr Gly Phe Ser Gly His Gly Leu Gln Gln Ala Pro Gly Ile Gly Arg
 420 425 430
 Ala Val Ala Glu Met Val Leu Lys Gly Arg Phe Gln Thr Ile Asp Leu
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<210> 3839

<211> 758

<212> DNA

<213> Homo sapiens

<400> 3839

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<210> 3840

<211> 252

<212> PRT

<213> Homo sapiens

<400> 3840

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			20					25				30			
Met	Glu	Tyr	Leu	Asn	Ser	Arg	Cys	Val	Leu	Phe	Thr	Tyr	Phe	Gln	Gly
		35					40					45			
Asp	Ile	Gly	Ser	Val	Val	Asp	Glu	His	Phe	Ser	Arg	Ala	Leu	Gly	Gln
		50				55					60				
Ala	Ile	Thr	Leu	His	Pro	Glu	Ser	Ala	Ile	Ser	Lys	Ser	Lys	Met	Gly
65					70					75				80	
Leu	Thr	Pro	Leu	Trp	Arg	Asp	Ser	Ser	Ala	Leu	Ser	Ser	Gln	Arg	Asn
				85					90					95	
Ser	Phe	Pro	Thr	Ser	Phe	Trp	Thr	Ser	Ser	Tyr	Gln	Pro	Pro	Pro	Ala
			100					105					110		
Pro	Cys	Leu	Gly	Gly	Val	His	Pro	Asp	Phe	Gln	Val	Thr	Gly	Pro	Pro
		115					120					125			
Gly	Thr	Phe	Ser	Ala	Ala	Asp	Pro	Ser	Pro	Trp	Pro	Gly	His	Asn	Leu
		130				135					140				
His	Gln	Thr	Gly	Pro	Ala	Pro	Pro	Pro	Ala	Val	Ser	Glu	Ser	Trp	Pro
145					150					155				160	
Tyr	Pro	Leu	Thr	Ser	Gln	Val	Ser	Pro	Ser	Tyr	Ser	His	Met	His	Asp
				165					170				175		
Val	Tyr	Met	Arg	His	His	His	Pro	His	Ala	His	Met	His	His	Arg	His
			180					185				190			
Arg	His	His	His	His	His	His	His	Pro	Pro	Ala	Gly	Ser	Ala	Leu	Asp
		195					200					205			
Pro	Ser	Tyr	Gly	Pro	Leu	Leu	Met	Pro	Ser	Val	His	Ala	Ala	Arg	Ile
		210				215					220				
Pro	Ala	Pro	Gln	Cys	Asp	Ile	Thr	Lys	Thr	Glu	Pro	Thr	Thr	Val	Thr
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 <211> 367
 <212> DNA
 <213> Homo sapiens

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<210> 3842
 <211> 122
 <212> PRT
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 35 40 45
 Glu His Pro Asn Asp Val Arg Cys Ser Ser Thr Leu Val Thr His Ser
 50 55 60
 Lys Gly Tyr Glu Asn Gly Thr Asn Arg Leu Ser Leu Pro Lys Pro Ile
 65 70 75 80
 Leu Lys Ser Glu Lys Asn Lys Pro Leu Asp Pro Glu Met Gln Cys Leu
 85 90 95
 Leu Leu Ser Asp Gly Lys Gly Ser Ile His Pro Asn His Val Val Ile
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 Leu Pro Gly Asp Gly Gly Ser Gly Pro Ala
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<210> 3843
 <211> 712
 <212> DNA
 <213> Homo sapiens

<400> 3843
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<210> 3844

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3844

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			20					25					30		
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	50					55				60					
Lys	Gln	Lys	Ala	Arg	Arg	Arg	Thr	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70				75					80	
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
			85					90					95		
Ser	Ser	Asp	Gly	Arg	Lys	Lys	Arg	Gly	Lys	Tyr	Lys	Asp	Lys	Arg	Arg
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Lys	Lys	Lys	Lys	Lys	Arg	Lys	Lys	Leu	Lys	Lys	Lys	Gly	Lys	Glu	Lys
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<211> 2302

<212> DNA

<213> Homo sapiens

<400> 3845

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<211> 197

<212> PRT

<213> Homo sapiens

<400> 3846

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Gly	Pro	Ala	Glu	Pro	Arg	Val	Ala	Gly	Ala	Gly	Ala	Ala	Ala	Ala	Glu
	35					40					45				
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Gly	Gly	Ala	His	Gly	His	Phe	Pro	Gln	Arg	Pro	Pro	Gln	Gln	Ala	Gly
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	115					120					125				
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<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 3848
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 35 40 45
 Met Asp Asn Val Cys Ile Ile Cys Arg Glu Glu Met Val Thr Gly Ala
 50 55 60
 Lys Arg Leu Pro Cys Asn His Ile Phe His Thr Arg Trp Glu Gly Pro
 65 70 75 80
 Trp Gly Ala Cys Pro Ala Gly Pro Arg Pro Gln Lys Ala Gly Pro Lys
 85 90 95
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 Trp Phe Gln Arg Gln Gln Thr Cys
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<211> 257

<212> PRT

<213> Homo sapiens

<400> 3850

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			20					25					30		
Phe	Pro	Phe	Asn	Gln	Trp	Gly	Leu	Gln	Pro	Arg	Ser	Leu	Leu	Leu	Gln
		35				40					45				
Ala	Ala	Arg	Gly	Tyr	Val	Val	Arg	Lys	Pro	Ala	Gln	Ser	Arg	Leu	Asp
		50				55					60				
Asp	Asp	Pro	Pro	Pro	Ser	Thr	Leu	Leu	Lys	Asp	Tyr	Gln	Asn	Val	Pro
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			85						90					95	
Met	Ala	Asn	Lys	Lys	Glu	Met	Leu	Lys	Ile	Lys	Gln	Glu	Gln	Phe	Met
		100						105					110		
Lys	Lys	Ile	Val	Ala	Asn	Pro	Glu	Asp	Thr	Arg	Ser	Leu	Glu	Ala	Arg
		115						120				125			
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		130				135					140				
Lys	His	Arg	Lys	Asp	Lys	Ala	His	Lys	Arg	Tyr	Leu	Leu	Met	Ser	Ile
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			165					170						175	
Val	Phe	Glu	Lys	Ile	Cys	Trp	Gly	Leu	Gly	Ile	Glu	Tyr	Thr	Phe	Pro

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Leu	Cys	Ile	Arg	Val	Phe	Gln
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Arg	Ala	Leu	Lys	Ala	Ala	Ala
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<210> 3851

<211> 1183

<212> DNA

<213> Homo sapiens

<400> 3851

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<211> 323

<212> PRT

<213> Homo sapiens

<400> 3852

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			20					25					30		
Trp	Ser	Ile	Ser	Ser	Arg	His	Val	Leu	Leu	Gln	Glu	Glu	Val	Ala	Glu
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Leu	Gln	Gly	Gln	Val	Gln	Arg	Thr	Glu	Val	Ala	Arg	Gly	Arg	Leu	Glu
	50					55					60				
Lys	Arg	Asn	Ser	Asp	Leu	Leu	Leu	Val	Asp	Thr	His	Lys	Lys	Gln	
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Ile	Asp	Gln	Lys	Glu	Ala	Asp	Tyr	Gly	Arg	Leu	Ser	Ser	Arg	Leu	Gln
			85						90					95	
Ala	Arg	Glu	Gly	Leu	Gly	Lys	Arg	Cys	Glu	Asp	Asp	Lys	Val	Lys	Leu
		100						105					110		
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Gln	Leu	Ala	Glu	Leu	Arg	Gln	Glu	Phe	Leu	Arg	Gln	Glu	Asp	Gln	Leu
	130					135					140				
Gln	Asp	Tyr	Arg	Lys	Asn	Asn	Thr	Tyr	Leu	Val	Lys	Arg	Leu	Glu	Tyr
145				150					155					160	
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			165					170						175	
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Glu	Gln	Ile	Lys	Arg	Gly	Gly	Asp	Ala	Gly	Met	Pro	Gly	Ile	Glu	Glu
			245					250						255	
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	275						280					285			
Pro	Thr	Gly	Gln	Pro	Leu	Ser	Pro	Asn	Met	Pro	Pro	Asp	Ser	His	Ile
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 <211> 375
 <212> DNA
 <213> Homo sapiens

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<210> 3854
 <211> 125
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Ser Glu Cys Tyr Arg Gly Phe Ala Asp Ser Glu Arg Lys Val Ile
 50 55 60
 Pro Ile Ile Ser Lys Cys Leu Glu Gly Met Ile Leu Ala Ala Lys Ser
 65 70 75 80
 Val Asp Glu Arg Arg Asp Ser Gln Met Val Val Asp Ser Phe Lys Ser
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 Gly Phe Glu Pro Pro Gly Asp Phe Pro Phe Glu Asp Tyr Ser Gln His
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 Ile Tyr Arg Thr Ile Ser Asp Gly Thr Ile Ser Ala Ser
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<210> 3855
 <211> 1377
 <212> DNA
 <213> Homo sapiens

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 ggctcttctt cctttgtact cttcagctgg cacctgctcc attctgccct acatgatggg
 1260
 taactgtgat ctttcttccc tgttagattg taagcctccg tctttgtatc ccagccccta
 1320
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 1377

<210> 3856

<211> 330

<212> PRT

<213> Homo sapiens

<400> 3856

Xaa	Ala	Ala	Thr	Met	Ala	Thr	Tyr	Asn	Gln	Leu	Ser	Tyr	Ala	Gln	Lys
1			5					10					15		
Ala	Lys	Tyr	His	Leu	Cys	Ser	Ala	Gly	Trp	Leu	Glu	Thr	Gly	Arg	Val
			20					25					30		
Ala	Tyr	Pro	Thr	Ala	Phe	Ala	Ser	Gln	Asn	Cys	Gly	Ser	Gly	Val	Val

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<210> 3857
<211> 797
<212> DNA
<213> Homo sapiens
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<400> 3857
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60
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120
ccttccacca ggtcctgggc gagaagcata agcgcggcca cctggccgag gccgagggcc
180
acagggacac ttgcgacgaa gactcgggtg ccggcgagtc ggaccgcata gacgatggca
240
ctgttaatgg ccgcggctgc tccccgggcg agtcggcctc ggggggcctg tccaaaaagc
300

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tgctgctggg cagccccagc tcgctgagcc ccttctctaa gcgcatcaag ctcgagaagg
 360
 agttcgacct gccccggcc gcgatgccca acacggagaa cgtgtactcg cagtggctcg
 420
 ccggctacgc ggctccagg cagctcaaag atcccttctt tagcttcgga gactccagac
 480
 aatcgcccttt tgcctcctcg tcggagcact cctcggagaa cgggagcttg cgcttctcca
 540
 caccgccccg ggagctggac ggagggatct cggggcgag cggcacggga agtggaggga
 600
 gcacgccccca tattagtggc ccgggccccg gcaggccccag ctcaaaagag ggcagacgca
 660
 gcgacacttg ttcttcacac accccattc gccgtagtac ccagagagct caagatgtgt
 720
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 780
 gggtaggggtg gacgcgt
 797

<210> 3858

<211> 76

<212> PRT

<213> Homo sapiens

<400> 3858

Xaa	Arg	Ala	Thr	Thr	Arg	Thr	Ala	Ser	Gly	Ala	Arg	Ser	Trp	Ala	Trp
1				5					10					15	
Ala	Thr	Arg	Ala	Ala	Pro	Cys	Pro	Thr	Ser	Cys	Arg	Ala	Trp	Cys	Ser
			20					25					30		
Ala	Pro	Cys	Ser	Thr	Ser	Ala	Arg	Pro	Ser	Thr	Arg	Ser	Trp	Ala	Arg
		35					40					45			
Ser	Ile	Ser	Ala	Ala	Thr	Trp	Pro	Arg	Pro	Arg	Ala	Thr	Gly	Thr	Leu
	50					55					60				
Ala	Thr	Lys	Thr	Arg	Trp	Pro	Ala	Ser	Arg	Thr	Ala				
65					70						75				

<210> 3859

<211> 1449

<212> DNA

<213> Homo sapiens

<400> 3859

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 120
 tttgaagctc ggagtaaaac tgcttgcaag cacctctgga agtgcagtgt ggaacatcat
 180
 acatttttta gaatgccaga aatgaatcc aattcactgt caagaaaact cagcaagttt
 240
 ggatccatac gttataagca ccgctacagt ggcaggacag ctttgcaaat gagccgagat
 300
 ctttctattc agcttccccg gcctgatcag aatgtgacaa gaagtcgaag caagacttac
 360

cctaagcgaa tagcacaaac acagccagct gaatcaaaca ccatcagtag gataactgca
 420
 aacatggaaa atggagaaaa tgaaggaaca attaaaatta ttgcaccttc accagtaaaa
 480
 agctttaaga aagcaaagaa tgaaaatagc cctgataccc aaagaagcaa atctcatgca
 540
 ccgtgggaag aaaatggccc ccagagtggga ctctacaatt ctcccagtga tcgcactaag
 600
 tcgccaaagt tcccttacac gcgtcgccga aaccctcctt gtggaagtga caatgattct
 660
 gtacagcctg tgaggaggag gaaagcccat aacagtgggtg aagattcaga tcttaagcaa
 720
 aggaggaggt cacgttcacg ctgtaacacc agcagtggta gtgaatcaga aaattctaat
 780
 agagaacacc ggaaaaagag aaacagaata cggcaggaga atgatatggt tgattcagcg
 840
 cctcagtggg aagctgtatt aaggagacaa aaggaaaaaa accaagccga cccaacaac
 900
 aggcgatcca gacacagatc tcgttcgaga agccccgata tccaagcaaa agaagagtta
 960
 tggaagcaca ttcaaaaaga acttgtggat ccatccggat tgtccgaaga acaattaaaa
 1020
 gagattccat aactaaaaat agagtgagtg cctttcagaa tcttctcacc aaagctttat
 1080
 tagtgcttga cacaaggtga cccaatccgc atcaggcatt ctcatcgcg acgaagttac
 1140
 cgccagtatc gcaggtccca gtgttcagat ggggagcgat cagttctctc ggaagtgaat
 1200
 tcaaaaacag atcttgtacc accacttccg gtgacccatt cttcggatgc tcagggttct
 1260
 ggggatgcta cagttcatca gagaagaaat ggggtctaaag atagcctgat ggaagaaaaa
 1320
 cctcagacat ctacaaacaa cctggctgga aaacacacag caaaaacaat aaaaactata
 1380
 caagcttccc gcctcaagac agagacttga tctgatgaa ggggtcaaggg taggggtggg
 1440
 aaggttggtg
 1449

<210> 3860

<211> 348

<212> PRT

<213> Homo sapiens

<400> 3860

Tyr	Lys	Asn	Lys	Lys	Gln	Val	Gly	Lys	Tyr	Phe	Trp	Pro	Arg	Ile	Thr
1				5				10						15	
Lys	Val	His	Phe	Lys	Glu	Thr	Gln	Phe	Glu	Leu	Arg	Val	Leu	Gly	Lys
			20					25					30		
Asp	Cys	Asn	Glu	Thr	Ser	Phe	Phe	Phe	Glu	Ala	Arg	Ser	Lys	Thr	Ala
		35					40					45			
Cys	Lys	His	Leu	Trp	Lys	Cys	Ser	Val	Glu	His	His	Thr	Phe	Phe	Arg
	50					55					60				
Met	Pro	Glu	Asn	Glu	Ser	Asn	Ser	Leu	Ser	Arg	Lys	Leu	Ser	Lys	Phe

65					70					75				80	
Gly	Ser	Ile	Arg	Tyr	Lys	His	Arg	Tyr	Ser	Gly	Arg	Thr	Ala	Leu	Gln
				85					90					95	
Met	Ser	Arg	Asp	Leu	Ser	Ile	Gln	Leu	Pro	Arg	Pro	Asp	Gln	Asn	Val
			100					105					110		
Thr	Arg	Ser	Arg	Ser	Lys	Thr	Tyr	Pro	Lys	Arg	Ile	Ala	Gln	Thr	Gln
			115				120					125			
Pro	Ala	Glu	Ser	Asn	Thr	Ile	Ser	Arg	Ile	Thr	Ala	Asn	Met	Glu	Asn
	130					135					140				
Gly	Glu	Asn	Glu	Gly	Thr	Ile	Lys	Ile	Ile	Ala	Pro	Ser	Pro	Val	Lys
145					150					155					160
Ser	Phe	Lys	Lys	Ala	Lys	Asn	Glu	Asn	Ser	Pro	Asp	Thr	Gln	Arg	Ser
			165						170				175		
Lys	Ser	His	Ala	Pro	Trp	Glu	Glu	Asn	Gly	Pro	Gln	Ser	Gly	Leu	Tyr
			180					185					190		
Asn	Ser	Pro	Ser	Asp	Arg	Thr	Lys	Ser	Pro	Lys	Phe	Pro	Tyr	Thr	Arg
		195					200					205			
Arg	Arg	Asn	Pro	Ser	Cys	Gly	Ser	Asp	Asn	Asp	Ser	Val	Gln	Pro	Val
		210				215					220				
Arg	Arg	Arg	Lys	Ala	His	Asn	Ser	Gly	Glu	Asp	Ser	Asp	Leu	Lys	Gln
225					230					235					240
Arg	Arg	Arg	Ser	Arg	Ser	Arg	Cys	Asn	Thr	Ser	Ser	Gly	Ser	Glu	Ser
			245						250				255		
Glu	Asn	Ser	Asn	Arg	Glu	His	Arg	Lys	Lys	Arg	Asn	Arg	Ile	Arg	Gln
			260					265					270		
Glu	Asn	Asp	Met	Val	Asp	Ser	Ala	Pro	Gln	Trp	Glu	Ala	Val	Leu	Arg
		275					280					285			
Arg	Gln	Lys	Glu	Lys	Asn	Gln	Ala	Asp	Pro	Asn	Asn	Arg	Arg	Ser	Arg
		290				295					300				
His	Arg	Ser	Arg	Ser	Arg	Ser	Pro	Asp	Ile	Gln	Ala	Lys	Glu	Glu	Leu
305					310					315					320
Trp	Lys	His	Ile	Gln	Lys	Glu	Leu	Val	Asp	Pro	Ser	Gly	Leu	Ser	Glu
			325						330				335		
Glu	Gln	Leu	Lys	Glu	Ile	Pro	Tyr	Thr	Lys	Ile	Glu				
			340					345							

<210> 3861

<211> 748

<212> DNA

<213> Homo sapiens

<400> 3861

nagattggag tccggccgcc ccccgacagc agccgcctcc tgccttcctc gctgctaggc

60

gccaccatgt cgggagacaa acttctgagc gaactcgggtt ataagctggg ccgcacaatt

120

ggagagggca gctactccaa ggtgaagggtg gccacatcca agaagtacaa ggggtaccgtg

180

gccatcaagg tgggtggaccg gcgggcgagcg cccccggact tcgtcaacaa gttcctgccc

240

cgagagctgt ccattctgcg gggcgtgcga caccgcaca tcgtgcacgt cttcgagttc

300

atcgaggtgt gcaacgggaa actgtacatc gtgatggaag cggccgccac cgacctgctg

360

caagccgtgc agcgcaacgg ggcacatcccc ggagttcagg cgcgcgacct ctttgcgcag
 420
 atcgccggcg ccgtgcgcta cctgcacgat catcacctgg tgcaccgcga cctcaagtgc
 480
 gaaaacgtgc tgctgagccc ggacgagcgc cgcgtaagc tcaccgactt cggttcggc
 540
 cgccaggccc atggctaccc agacctgagc accacctact ggggctcagc cgtacgcgtc
 600
 acccgagtca tgcatttctt gagcacctac tgtctgccag gccccagagc tcatggcgaa
 660
 gagacttggg cccatccctg ccgaaaacga gacaattgaa aagtcaagta aaataaaaga
 720
 atgacatgga aataaaaaaa aaaaaaaa
 748

<210> 3862

<211> 210

<212> PRT

<213> Homo sapiens

<400> 3862

Met	Ser	Gly	Asp	Lys	Leu	Leu	Ser	Glu	Leu	Gly	Tyr	Lys	Leu	Gly	Arg
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Thr	Ile	Gly	Glu	Gly	Ser	Tyr	Ser	Lys	Val	Lys	Val	Ala	Thr	Ser	Lys
		20						25					30		
Lys	Tyr	Lys	Gly	Thr	Val	Ala	Ile	Lys	Val	Val	Asp	Arg	Arg	Arg	Ala
		35					40				45				
Pro	Pro	Asp	Phe	Val	Asn	Lys	Phe	Leu	Pro	Arg	Glu	Leu	Ser	Ile	Leu
		50				55					60				
Arg	Gly	Val	Arg	His	Pro	His	Ile	Val	His	Val	Phe	Glu	Phe	Ile	Glu
65					70					75				80	
Val	Cys	Asn	Gly	Lys	Leu	Tyr	Ile	Val	Met	Glu	Ala	Ala	Ala	Thr	Asp
			85						90					95	
Leu	Leu	Gln	Ala	Val	Gln	Arg	Asn	Gly	Arg	Ile	Pro	Gly	Val	Gln	Ala
		100						105					110		
Arg	Asp	Leu	Phe	Ala	Gln	Ile	Ala	Gly	Ala	Val	Arg	Tyr	Leu	His	Asp
		115					120					125			
His	His	Leu	Val	His	Arg	Asp	Leu	Lys	Cys	Glu	Asn	Val	Leu	Leu	Ser
		130				135					140				
Pro	Asp	Glu	Arg	Arg	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Gly	Arg	Gln
145					150					155				160	
Ala	His	Gly	Tyr	Pro	Asp	Leu	Ser	Thr	Thr	Tyr	Cys	Gly	Ser	Ala	Val
			165						170					175	
Arg	Val	Thr	Arg	Val	Met	His	Phe	Leu	Ser	Thr	Tyr	Cys	Leu	Pro	Gly
		180						185					190		
Pro	Arg	Ala	His	Gly	Glu	Glu	Thr	Trp	Ala	His	Pro	Cys	Arg	Lys	Arg
		195					200					205			
Asp	Asn														
		210													

<210> 3863

<211> 341

<212> DNA

<213> Homo sapiens

<400> 3863

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 ctcaacttga ggcttcctat tttctttaat cctgggggtac agctcccacc tggacacttc
 120
 agttttgctc tcagttggga ctctgggaaa aaaactgtgt ggctgatctc cagcagggttc
 180
 ttctgggcga ggctccccga gaaccatctg gccatgggct ggcagccgag ttctcgcagt
 240
 gtccaggctg acggtacatt ccaggctagc catcctatca taatcgaatc tgagtagatt
 300
 tttatcaatc gcttgggaca agccattgaa ttttcggaga g
 341

<210> 3864

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3864

Met	Ala	Cys	Pro	Lys	Arg	Leu	Ile	Lys	Ile	Tyr	Ser	Asp	Ser	Ile	Met
1				5				10						15	
Ile	Gly	Trp	Leu	Ala	Trp	Asn	Val	Pro	Ser	Ala	Trp	Thr	Leu	Arg	Glu
			20					25					30		
Leu	Gly	Cys	Gln	Pro	Met	Ala	Arg	Trp	Phe	Ser	Gly	Ser	Leu	Asp	Gln
		35					40					45			
Lys	Asn	Leu	Val	Glu	Ile	Ser	His	Thr	Val	Phe	Phe	Pro	Glu	Ser	Gln
	50					55					60				
Leu	Arg	Ala	Lys	Leu	Lys	Cys	Pro	Gly	Gly	Ser	Cys	Thr	Pro	Gly	Leu
65					70					75					80
Lys	Lys	Ile	Gly	Ser	Leu	Lys	Val	Ser	Cys	Glu	Glu	Phe	Leu	Leu	Met
			85					90						95	
Gly	Leu	Arg	Tyr	Gln	His	Leu	Asp	Pro	Pro	Ser	Arg				
			100					105							

<210> 3865

<211> 492

<212> DNA

<213> Homo sapiens

<400> 3865

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 120
 gagacctatg tgaagccac ttaattttct gaaacttcac atcatgtacc ttcattgtaa
 180
 tattctgaca cttgtttcat gcagccatac cagtcacaac tttaaatttt tagtcagact
 240
 ttgctcaciaa ggtttcagga taattaatac aaatggtttg ggccagccat cacacagcag
 300
 tctcctattt acttcactac aactacagct ttcattcttc attacattac tttttctgag
 360

tagtctgggt caaatagtac aaactgaata ttccttaacc aaaatgcttg gaagtaggcc
 420
 gggagcagcg gctcaccct gtaatcccag cattttggga ggccaaagca gacagatcac
 480
 tcaaggtcag ca
 492

<210> 3866
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 3866
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 1 5 10 15
 Ser His Asn Phe Lys Phe Leu Val Arg Leu Cys Ser Gln Gly Phe Arg
 20 25 30
 Ile Ile Asn Thr Asn Gly Leu Gly Gln Pro Ser His Ser Ser Leu Leu
 35 40 45
 Phe Thr Ser Leu Gln Leu Gln Leu Ser Phe Phe Ile Thr Leu Leu Phe
 50 55 60
 Leu Ser Ser Leu Gly Gln Ile Val Gln Thr Glu Tyr Ser Leu Thr Lys
 65 70 75 80
 Met Leu Gly Ser Arg Pro Gly Ala Ala Ala His Pro Cys Asn Pro Ser
 85 90 95
 Ile Leu Gly Gly Gln Ser Arg Gln Ile Thr Gln Gly Gln
 100 105

<210> 3867
 <211> 1032
 <212> DNA
 <213> Homo sapiens

<400> 3867
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 60
 gagcagcatc agactgagat cagggatctc caggaccagc tctcagaaat gcacgatgaa
 120
 ctggacagtg caaagcgatc ggaggacagg gagaagggag ctctgattga ggagctctta
 180
 caggcaaaac aggatcttca agatctgctg attgccaaag aggagcaaga agacctcttg
 240
 agaaagcgag agcgtgaact caccgccttg aaggagccc tgaaagaaga ggtttccagc
 300
 catgatcagg agatggacaa gctgaaggag caatatgatg ctgagttgca ggccctgagg
 360
 gagagtgtgg aagaagcaac caagaatgtc gaggtcttgg cgagcaggag caacacttca
 420
 gagcaagacc aggcggggac tgaaatgcgc gtgaagcttc tgcaggagga gaatgagaag
 480
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 540
 gacctgaaag gcgatgaagc caaggcgaag gaaacgctga agaagtacga gggagaaata
 600

cgacagttag aggaggccct tgtgcacgcc agaaaggaag aaaaagaagc tgtgtcagcc
 660
 agaagggccc tggagaatga actggaggct gctcagggaa atctgagtca gactacccag
 720
 gagcagaagc agttgtctga gaagctcaaa gaggagagtg agcagaagga gcagctaaga
 780
 aggttgaaga acgagatgga gaatgagcgg tggcacctgg gcaaaacccat tgagaaactg
 840
 cagaaggaga tggcagacat tggtgaggcc tcccgtacct caaccctgga gctccagaac
 900
 cagctggatg agtataagga gaaaaaccgc agggagctcg cagaaatgca aagacagttg
 960
 aaggagaaaa cgctggaggc agaaaagtcc cgactgacag ccatgaaaat gcaggatgag
 1020
 atgcgtctga tg
 1032

<210> 3868

<211> 344

<212> PRT

<213> Homo sapiens

<400> 3868

Thr	Arg	Glu	Gly	Glu	Leu	Arg	Lys	Asn	Leu	Glu	Glu	Leu	Phe	Gln	Val
1				5					10					15	
Lys	Met	Glu	Arg	Glu	Gln	His	Gln	Thr	Glu	Ile	Arg	Asp	Leu	Gln	Asp
				20				25					30		
Gln	Leu	Ser	Glu	Met	His	Asp	Glu	Leu	Asp	Ser	Ala	Lys	Arg	Ser	Glu
				35			40					45			
Asp	Arg	Glu	Lys	Gly	Ala	Leu	Ile	Glu	Glu	Leu	Leu	Gln	Ala	Lys	Gln
				50			55				60				
Asp	Leu	Gln	Asp	Leu	Leu	Ile	Ala	Lys	Glu	Glu	Gln	Glu	Asp	Leu	Leu
				65		70				75				80	
Arg	Lys	Arg	Glu	Arg	Glu	Leu	Thr	Ala	Leu	Lys	Gly	Ala	Leu	Lys	Glu
				85				90						95	
Glu	Val	Ser	Ser	His	Asp	Gln	Glu	Met	Asp	Lys	Leu	Lys	Glu	Gln	Tyr
				100				105					110		
Asp	Ala	Glu	Leu	Gln	Ala	Leu	Arg	Glu	Ser	Val	Glu	Glu	Ala	Thr	Lys
				115			120					125			
Asn	Val	Glu	Val	Leu	Ala	Ser	Arg	Ser	Asn	Thr	Ser	Glu	Gln	Asp	Gln
				130			135					140			
Ala	Gly	Thr	Glu	Met	Arg	Val	Lys	Leu	Leu	Gln	Glu	Glu	Asn	Glu	Lys
				145		150				155				160	
Leu	Gln	Gly	Arg	Ser	Glu	Glu	Leu	Glu	Arg	Arg	Val	Ala	Gln	Leu	Gln
				165				170						175	
Arg	Gln	Ile	Glu	Asp	Leu	Lys	Gly	Asp	Glu	Ala	Lys	Ala	Lys	Glu	Thr
				180				185					190		
Leu	Lys	Lys	Tyr	Glu	Gly	Glu	Ile	Arg	Gln	Leu	Glu	Glu	Ala	Leu	Val
				195			200					205			
His	Ala	Arg	Lys	Glu	Glu	Lys	Glu	Ala	Val	Ser	Ala	Arg	Arg	Ala	Leu
				210			215				220				
Glu	Asn	Glu	Leu	Glu	Ala	Gln	Gly	Asn	Leu	Ser	Gln	Thr	Thr	Gln	
				225		230			235					240	
Glu	Gln	Lys	Gln	Leu	Ser	Glu	Lys	Leu	Lys	Glu	Glu	Ser	Glu	Gln	Lys

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<210> 3869
<211> 1226
<212> DNA
<213> Homo sapiens
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3014

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gtcgagctgg atggagtgcc ggtgtctccg ggctgggtgg ggagaggctg tgggcggcca
1140
cttggcagct ggttgggctg aggtaggtcc tgcaggcgca tagtacacag cggcagggtg
1200
ataaggcatg atgggaaccg aggaga
1226

<210> 3870
<211> 100
<212> PRT
<213> Homo sapiens

<400> 3870
Met Ala Ala Glu Ala Phe Pro Ser Asp Lys Leu Gln Ser Ala Gln Asp
1 5 10 15
Ala Ile His His Gly Pro Leu Gln Tyr Leu Thr His Gly Pro Gln Leu
20 25 30
Leu Leu Gly Ser Gln Trp His Leu Ser Val Ala Ser Tyr Leu Pro Gly
35 40 45
Pro Gly Trp Gly Thr Val Cys Gly His Glu Ala Arg Pro Pro Pro Ala
50 55 60
Pro Leu Pro Arg Gly Ser Ile Pro Leu His Phe Trp Asn Val Cys
65 70 75 80
Ala Ser Met Met Phe Val Tyr Leu Arg His Leu Lys Ile Tyr Phe Arg
85 90 95
Tyr Glu Gly Lys
100

<210> 3871
<211> 473
<212> DNA
<213> Homo sapiens

<400> 3871
nggatcctta tggagtaact tctgtgggac atcctgcac ccttccaagc ttgggtgaga
60
tgcctcacat ttcccagtgc ttcctctgca cccctccatt ggagtaaaaa ccacagtttg
120
tgggatggtt gagttgacag ctctgaatcc cagaaacctt aattttggct tatcttttga
180
taggctgagg gaaaatacaa agatgaccc gttgatctcc gccttgatat tgaacgtcgt
240
aaaaaacata aggagagaga tcttaaacga ggtaaatcga gagaatcagt ggattcccga
300
gactccagtc actcaaggga aaggtcagct gaaaaaacag agaaaactca taaaggatca
360
aagaaacaga agaaagacct ctgagagccg agacaagctg ggagcgaaag gagattttcc
420
cacaggaaag tcttcctttt ccattactcg agaggcacag gtcaatgtcc gga
473

<210> 3872

<211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3872
 Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp Ile
 1 5 10 15
 Glu Arg Arg Lys Lys His Lys Glu Arg Asp Leu Lys Arg Gly Lys Ser
 20 25 30
 Arg Glu Ser Val Asp Ser Arg Asp Ser Ser His Ser Arg Glu Arg Ser
 35 40 45
 Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys Lys
 50 55 60
 Asp Leu
 65

<210> 3873
 <211> 869
 <212> DNA
 <213> Homo sapiens

<400> 3873
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<210> 3874

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<400> 3874

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<213> Homo sapiens

<400> 3876

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<212> DNA

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<211> 943

<212> DNA

<213> Homo sapiens

<400> 3883

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<400> 3884
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 Arg Leu Ile Lys Gly Asp Gly Glu Val Leu Glu Glu Ile Val Thr Lys
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 Gln Val Leu Ala Ala Thr Tyr Asn Gln Ala Ala Gln Leu Trp Lys Val
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 Gly Glu Ala Gln Ser Lys Glu Thr Leu Ser Gly His Lys Asp Lys Val
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 Thr Ala Ala Lys Phe Lys Leu Thr Arg His Gln Ala Val Thr Gly Ser
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 Arg Thr Ile Asn Val Leu Ser Tyr Cys Asn Asp Val Val Xaa Trp Gly
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<400> 3887

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<212> PRT

<213> Homo sapiens

<400> 3888

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										530					535					540				
Gln	Leu	Val	Lys	Val	Ile	Arg	Pro	Leu	Asp	Gln	Pro	Ser	Ser	Phe	Asp									
										545					550					555				
Ala	Thr	Pro	Tyr	Ile	Lys	Asp	Leu	Phe	Thr	Cys	Thr	Ile	Lys	Arg	Leu									
										565					570					575				
Lys	Ala	Ala	Asp	Ile	Asp	Gln	Glu	Val	Lys	Glu	Arg	Ala	Ile	Ser	Cys									
										580														

595	600	605
Pro Asn Thr Leu Gln Ile Phe Leu Glu Arg Leu Lys Asn Glu Ile Thr		
610	615	620
Arg Leu Thr Thr Val Lys Ala Leu Thr Leu Ile Ala Gly Ser Pro Leu		
625	630	635
Lys Ile Asp Leu Arg Pro Val Leu Gly Glu Gly Val Pro Ile Leu Ala		640
	645	650
Ser Phe Leu Arg Lys Asn Gln Arg Ala Leu Lys Leu Gly Thr Leu Ser		655
	660	665
Ala Leu Asp Ile Leu Ile Lys Asn Tyr Ser Asp Ser Leu Thr Ala Ala		670
	675	680
Met Ile Asp Ala Val Leu Asp Glu Leu Pro Pro Leu Ile Ser Glu Ser		685
	690	695
Asp Met His Val Ser Gln Met Ala Ile Ser Phe Leu Thr Thr Leu Ala		700
705	710	715
Lys Val Tyr Pro Ser Ser Leu Ser Lys Ile Ser Gly Ser Ile Leu Asn		720
	725	730
Glu Leu Ile Gly Leu Val Arg Ser Pro Leu Leu Gln Gly Gly Ala Leu		735
	740	745
Ser Ala Met Leu Asp Phe Phe Gln Ala Leu Val Val Thr Gly Thr Asn		750
	755	760
Asn Leu Gly Tyr Met Asp Leu Leu Arg Met Leu Thr Gly Pro Val Tyr		765
	770	775
Ser Gln Ser Thr Ala Leu Thr His Lys Gln Ser Tyr Tyr Ser Ile Ala		780
785	790	795
Lys Cys Val Ala Ala Leu Thr Arg Ala Cys Pro Lys Glu Gly Pro Ala		800
	805	810
Val Val Gly Gln Phe Ile Gln Asp Val Lys Asn Ser Arg Ser Thr Asp		815
	820	825
Ser Ile Arg Leu Leu Ala Leu Leu Ser Leu Gly Glu Val Gly His His		830
	835	840
Ile Asp Leu Ser Gly Gln Leu Glu Leu Lys Ser Val Ile Leu Glu Ala		845
	850	855
Phe Ser Ser Pro Ser Glu Glu Val Lys Ser Ala Ala Ser Tyr Ala Leu		860
865	870	875
Gly Ser Ile Ser Val Gly Asn Leu Pro Glu Tyr Leu Pro Phe Val Leu		880
	885	890
Gln Glu Ile Thr Ser Gln Pro Lys Arg Gln Tyr Leu Leu Leu His Ser		895
	900	905
Leu Lys Glu Ile Ile Ser Ser Ala Ser Val Val Gly Leu Lys Pro Tyr		910
	915	920
Val Glu Asn Ile Trp Ala Leu Leu Lys His Cys Glu Cys Ala Glu		925
	930	935
Glu Gly Thr Arg Asn Val Val Ala Glu Cys Leu Gly Lys Leu Thr Leu		940
945	950	955
Ile Asp Pro Glu Thr Leu Leu Pro Arg Leu Lys Gly Tyr Leu Ile Ser		960
	965	970
Gly Ser Ser Tyr Ala Arg Ser Ser Val Val Thr Ala Val Lys Phe Thr		975
	980	985
Ile Ser Asp His Pro Gln Pro Ile Asp Pro Leu Leu Lys Asn Cys Ile		990
	995	1000
Gly Asp Phe Leu Lys Thr Leu Glu Asp Pro Asp Leu Asn Val Arg Arg		1005
1010	1015	1020
Val Ala Leu Val Thr Phe Asn Ser Ala Ala His Asn Lys Pro Ser Leu		

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 Ile Arg Asp Leu Leu Asp Thr Val Leu Pro His Leu Tyr Asn Glu Thr
 1045 1050 1055
 Lys Val Arg Lys Glu Leu Ile Arg Glu Val Glu Met Gly Pro Phe Lys
 1060 1065 1070
 His Thr Val Asp Asp Gly Leu Asp Ile Arg Lys Ala Ala Phe Glu Cys
 1075 1080 1085
 Met Tyr Thr Leu Leu Asp Ser Cys Leu Asp Arg Leu Asp Ile Phe Glu
 1090 1095 1100
 Phe Leu Asn His Val Glu Asp Gly Leu Lys Asp His Tyr Asp Ile Lys
 1105 1110 1115 1120
 Met Leu Thr Phe Leu Met Leu Val Arg Leu Ser Thr Leu Cys Pro Ser
 1125 1130 1135
 Ala Val Leu Gln Arg Leu Asp Arg Leu Val Glu Pro Leu Arg Ala Thr
 1140 1145 1150
 Cys Thr Thr Lys Val Lys Ala Asn Ser Val Lys Gln Glu Phe Glu Lys
 1155 1160 1165
 Gln Asp Glu Leu Lys Arg Ser Ala Met Arg Ala Val Ala Ala Leu Leu
 1170 1175 1180
 Thr Ile Pro Glu Ala Glu Lys Ser Pro Leu Met Ser Glu Phe Gln Ser
 1185 1190 1195 1200
 Gln Ile Ser Ser Asn Pro Glu Leu Ala Ala Ile Phe Glu Ser Ile Gln
 1205 1210 1215
 Lys Asp Ser Ser Ser Thr Asn Leu Glu Ser Met Asp Thr Ser
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<210> 3889

<211> 556

<212> DNA

<213> Homo sapiens

<400> 3889

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 120
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 180
 cttattaagg gagatggcga ggtcctagag gaaatcgtaa ccaaagaacg acacagagag
 240
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 300
 ccctgagggc ccccgctggc caaggcctgt ggacgacgct ggcggcccag cctgggcagg
 360
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 420
 tctggcccag ccagtcctct tctcaggggc aggggggtgga ggttggggtc accggcctgc
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 aaaaaaaaaa aaaaaa
 556

<210> 3890

<211> 101
 <212> PRT
 <213> Homo sapiens

<400> 3890

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Glu	Glu	Asp	Gly	Pro	Val	Leu	Thr	Asp	Glu	Gln	Val	Pro	Asn	Pro	Gly
			20					25					30		
His	Glu	Ala	His	Asp	Gln	Gly	Gly	Trp	Asp	Ala	Arg	Gln	Ser	Ile	Ile
		35					40					45			
Arg	Lys	Val	Val	Asp	Pro	Glu	Thr	Gly	Arg	Thr	Arg	Leu	Ile	Lys	Gly
	50					55					60				
Asp	Gly	Glu	Val	Leu	Glu	Glu	Ile	Val	Thr	Lys	Glu	Arg	His	Arg	Glu
65					70					75				80	
Ile	Asn	Lys	Gln	Ala	Thr	Arg	Gly	Asp	Cys	Leu	Ala	Phe	Gln	Met	Arg
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Ala	Gly	Leu	Leu	Pro											
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<210> 3891
 <211> 1687
 <212> DNA
 <213> Homo sapiens

<400> 3891

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120
acaggccacg gcactgagag tagtggctct ggcctctttg ccctgtgcac cctggatggg
180
acactgaagc tcatggaaga aatggaagaa gcagacaagc tgctgtggtc agtgcagggtg
240
gatcaccagc tctttgccct ggagaaactg gatgtcaccg gcaacgggca tgaggaggta
300
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360
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420
cgcaacagcc cctgcctcgt atatgtcact ttcaaccaga agatctatgt gtactgggag
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660
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720
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780
ggatttgact ctgggcatga aagatggcag cagccctagg gtgaccgtga actatagacc
840

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tcgcagtctt ttcggtgaaa gaagagacaa gttgaccctc tgcccatttc cttatggacc
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 960
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 1020
 ataaggaaac caggcttttag gccagggga gcagtggagg taagggtcc accccatctt
 1080
 aagctctgtc ttccgtggca caattccaag ttcttgacgt tagtaattgt taaaggaatg
 1140
 gcaaactgtt ttgttttgaa ggatctttct acagtctggg cttacccatg ttcctagcaa
 1200
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 1260
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 1320
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 1380
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 1687

<210> 3892

<211> 179

<212> PRT

<213> Homo sapiens

<400> 3892

Val	Arg	Val	Leu	Asn	Ile	Trp	Pro	Tyr	Pro	Gln	Gln	Glu	Cys	Leu	His
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Ser	Pro	Asn	Trp	Gln	His	Gln	Thr	Gly	His	Gly	Thr	Glu	Ser	Ser	Gly
		20						25					30		
Ser	Gly	Leu	Phe	Ala	Leu	Cys	Thr	Leu	Asp	Gly	Thr	Leu	Lys	Leu	Met
		35					40					45			
Glu	Glu	Met	Glu	Glu	Ala	Asp	Lys	Leu	Leu	Trp	Ser	Val	Gln	Val	Asp
		50				55				60					
His	Gln	Leu	Phe	Ala	Leu	Glu	Lys	Leu	Asp	Val	Thr	Gly	Asn	Gly	His
65					70				75					80	
Glu	Glu	Val	Val	Ala	Cys	Ala	Trp	Asp	Gly	Gln	Thr	Tyr	Ile	Ile	Asp
				85				90						95	
His	Asn	Arg	Thr	Val	Val	Arg	Phe	Gln	Val	Asp	Glu	Asn	Ile	Arg	Ala
			100					105					110		
Phe	Cys	Ala	Gly	Leu	Tyr	Ala	Cys	Lys	Glu	Gly	Arg	Asn	Ser	Pro	Cys
		115					120					125			
Leu	Val	Tyr	Val	Thr	Phe	Asn	Gln	Lys	Ile	Tyr	Val	Tyr	Trp	Glu	Val

130	135	140
Gln Leu Glu Arg Met Glu Ser Thr Asn Leu Val Lys Leu Leu Glu Thr		
145	150	155
Lys Pro Ser Thr Thr Ala Cys Cys Arg Ser Trp Ala Trp Ile Leu Thr		160
	165	170
Thr Ser Leu		175

<210> 3893

<211> 1591

<212> DNA

<213> Homo sapiens

<400> 3893

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 120
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 180
 ggaaaattca agtgtgtttg catcactatg agagtgcctc ggaaccaac tatcggagat
 240
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 300
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 420
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 480
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 540
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 600
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 660
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 720
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 780
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 840
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 960
 gaactggcag ctatgaacat caaagtgaat ctggatgttg ttttaactga tgttgacctt
 1020
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 1080
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 1140
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 1200

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 1260
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 1320
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 1440
 gtgtttttta ccagctttat agaagtacag ttgttacata tttaatgaat acaatttgat
 1500
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 1560
 ctgtcatctc caaaaaaaaa aaaaaaaaaa a
 1591

<210> 3894

<211> 334

<212> PRT

<213> Homo sapiens

<400> 3894

Arg	Val	Leu	Gln	Lys	Leu	Asp	Asp	Asp	Gly	Leu	Pro	Phe	Ile	Gly	Ala
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Lys	Leu	Gln	Tyr	Gly	Asp	Pro	Tyr	Tyr	Ser	Tyr	Leu	Asn	Leu	Asn	Thr
		20					25					30			
Gly	Glu	Ser	Phe	Val	Met	Tyr	Tyr	Lys	Ser	Lys	Glu	Asn	Cys	Val	Val
		35				40					45				
Asp	Asn	Ile	Lys	Val	Cys	Ser	Asn	Asp	Thr	Gly	Ser	Gly	Lys	Phe	Lys
	50				55				60						
Cys	Val	Cys	Ile	Thr	Met	Arg	Val	Pro	Arg	Asn	Pro	Thr	Ile	Gly	Asp
65			70					75				80			
Lys	Phe	Ala	Ser	Arg	His	Gly	Gln	Lys	Gly	Ile	Leu	Ser	Arg	Leu	Trp
		85					90					95			
Pro	Ala	Glu	Asp	Met	Pro	Phe	Thr	Glu	Ser	Gly	Met	Val	Pro	Asp	Ile
		100					105					110			
Leu	Phe	Asn	Pro	His	Gly	Phe	Pro	Ser	Arg	Met	Thr	Ile	Gly	Met	Leu
		115					120				125				
Ile	Glu	Ser	Met	Ala	Gly	Lys	Ser	Ala	Ala	Leu	His	Gly	Leu	Cys	His
	130					135					140				
Asp	Ala	Thr	Pro	Phe	Ile	Phe	Ser	Glu	Glu	Asn	Ser	Ala	Leu	Glu	Tyr
145			150					155				160			
Phe	Gly	Glu	Met	Leu	Lys	Ala	Ala	Gly	Tyr	Asn	Phe	Tyr	Gly	Thr	Glu
		165						170				175			
Arg	Leu	Tyr	Ser	Gly	Ile	Ser	Gly	Leu	Glu	Leu	Glu	Ala	Asp	Ile	Phe
		180					185					190			
Ile	Gly	Val	Val	Tyr	Tyr	Gln	Arg	Leu	Arg	His	Met	Val	Ser	Asp	Lys
		195				200					205				
Phe	Gln	Val	Arg	Thr	Thr	Gly	Ala	Arg	Asp	Arg	Val	Thr	Asn	Gln	Pro
	210					215					220				
Ile	Gly	Gly	Arg	Asn	Val	Gln	Gly	Gly	Ile	Arg	Phe	Gly	Glu	Met	Glu
225			230					235				240			
Arg	Asp	Ala	Leu	Leu	Ala	His	Gly	Thr	Ser	Phe	Leu	Leu	His	Asp	Arg
		245						250				255			
Leu	Phe	Asn	Cys	Ser	Asp	Arg	Ser	Val	Ala	His	Val	Cys	Val	Lys	Cys

	260		265		270										
Gly	Ser	Leu	Leu	Ser	Pro	Leu	Leu	Glu	Lys	Pro	Pro	Pro	Ser	Trp	Ser
	275		280		285										
Ala	Met	Arg	Asn	Arg	Lys	Tyr	Asn	Cys	Thr	Leu	Cys	Ser	Arg	Ser	Asp
	290		295		300										
Thr	Ile	Asp	Thr	Val	Ser	Val	Pro	Tyr	Val	Phe	Arg	Tyr	Phe	Val	Ala
305			310		315									320	
Glu	Leu	Ala	Ala	Met	Asn	Ile	Lys	Val	Lys	Leu	Asp	Val	Val		
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<210> 3895

<211> 1227

<212> DNA

<213> Homo sapiens

<400> 3895

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180
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240
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300
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1140

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1200

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1227

<210> 3896

<211> 346

<212> PRT

<213> Homo sapiens

<400> 3896

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Leu	Lys	Gln	His	Lys	Glu	Ala	Lys	Arg	Phe	Glu	Ile	Ala	Arg	Ser	Gln
			20					25					30		
Pro	Glu	Asp	Thr	Pro	Glu	Asn	Thr	Val	Arg	Arg	Gln	Glu	Gln	Pro	Ser
		35					40					45			
Ile	Glu	Ser	Thr	Ser	Pro	Ile	Ser	Arg	Thr	Asp	Glu	Ile	Arg	Lys	Asn
	50					55				60					
Thr	Tyr	Arg	Thr	Leu	Asp	Ser	Leu	Glu	Gln	Thr	Ile	Lys	Gln	Leu	Glu
65				70						75				80	
Asn	Thr	Ile	Ser	Glu	Met	Ser	Pro	Lys	Ala	Leu	Val	Asp	Thr	Ser	Cys
			85						90					95	
Ser	Ser	Asn	Arg	Asp	Ser	Val	Ala	Ser	Ser	Ser	His	Ile	Ala	Gln	Glu
			100					105					110		
Ala	Ser	Pro	Arg	Pro	Leu	Leu	Val	Pro	Asp	Glu	Gly	Pro	Thr	Ala	Leu
		115					120					125			
Glu	Pro	Pro	Thr	Ser	Ile	Pro	Ser	Ala	Ser	Arg	Lys	Gly	Ser	Ser	Gly
	130					135					140				
Ala	Pro	Gln	Thr	Ser	Arg	Met	Pro	Val	Pro	Met	Ser	Ala	Lys	Asn	Arg
145				150						155				160	
Pro	Gly	Thr	Leu	Asp	Lys	Pro	Gly	Lys	Gln	Ser	Lys	Leu	Gln	Asp	Pro
			165					170						175	
Arg	Gln	Tyr	Arg	Gln	Ala	Asn	Gly	Ser	Ala	Lys	Lys	Ser	Gly	Gly	Asp
		180					185						190		
Phe	Lys	Pro	Thr	Ser	Pro	Ser	Leu	Pro	Ala	Ser	Lys	Ile	Pro	Ala	Leu
		195					200					205			
Ser	Pro	Ser	Ser	Gly	Lys	Ser	Ser	Ser	Leu	Pro	Ser	Ser	Ser	Gly	Asp
	210					215					220				
Ser	Ser	Asn	Leu	Pro	Asn	Pro	Pro	Ala	Thr	Lys	Pro	Ser	Ile	Ala	Ser
225				230						235				240	
Asn	Pro	Leu	Ser	Pro	Gln	Thr	Gly	Pro	Pro	Ala	His	Ser	Ala	Ser	Leu
			245					250						255	
Ile	Pro	Ser	Val	Ser	Asn	Gly	Ser	Leu	Lys	Phe	Gln	Ser	Leu	Thr	His
		260					265						270		
Thr	Gly	Lys	Gly	His	His	Leu	Ser	Phe	Ser	Pro	Gln	Ser	Gln	Asn	Gly
		275					280					285			
Arg	Ala	Pro	Pro	Pro	Leu	Ser	Phe	Ser	Ser	Ser	Pro	Pro	Ser	Pro	Ala
	290					295					300				
Ser	Ser	Val	Ser	Leu	Asn	Gln	Gly	Ala	Lys	Gly	Thr	Arg	Thr	Ile	His
305					310					315				320	
Thr	Pro	Ser	Leu	Thr	Ser	Tyr	Lys	Ala	Gln	Asn	Gly	Ser	Ser	Ser	Lys
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340

345

<210> 3897
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 3897
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<210> 3898
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 3898
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 35 40 45
 Cys Val Gln Asp Val Ser Glu Thr Pro Val Pro Leu Pro Val Pro Leu
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 Ser Val Pro Leu Ser Thr Ser Val Thr Ser Ser Leu Arg Gly Ser His
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<210> 3899
 <211> 1092
 <212> DNA
 <213> Homo sapiens

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<210> 3900

<211> 249

<212> PRT

<213> Homo sapiens

<400> 3900

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Arg	Pro	Ser	Leu	Gly	Arg	Val	Leu	Pro	Gly	Ser	Ser	Val	Leu	Phe	Leu
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Cys	Asp	Met	Gln	Glu	Lys	Phe	Arg	His	Asn	Ile	Ala	Tyr	Phe	Pro	Gln
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Ile	Val	Ser	Val	Ala	Ala	Arg	Met	Leu	Lys	Val	Ala	Arg	Leu	Leu	Glu
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Leu Arg Ser Val Leu Leu Cys Gly Ile Glu Ala Gln Ala Cys Ile Leu
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Asn Thr Thr Leu Asp Leu Leu Asp Arg Gly Leu Gln Val His Val Val
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Val Asp Ala Cys Ser Ser Arg Ser Gln Val Asp Arg Leu Val Ala Leu
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Ala Arg Met Arg Gln Ser Gly Ala Phe Leu Ser Thr Ser Glu Gly Leu
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Ile Leu Gln Leu Val Gly Asp Ala Val His Pro Gln Phe Lys Glu Ile
      210      215      220
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<210> 3901

<211> 1287

<212> DNA

<213> Homo sapiens

<400> 3901

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840

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<210> 3902

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3902

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			20					25					30	
Trp	Ala	Ala	Thr	Thr	Ala	Arg	Asn	Ala	Leu	Val	Val	Ser	Phe	Ala
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Leu	Val	Ala	Tyr	Ser	Phe	Glu	Val	Thr	Gly	Tyr	Gln	Pro	Phe	Ile
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Thr	Gly	Glu	Thr	Ala	Glu	Gly	Leu	Pro	Pro	Val	Arg	Ile	Pro	Pro
65					70					75				80
Ser	Val	Thr	Thr	Ala	Asn	Gly	Thr	Ile	Ser	Phe	Thr	Glu	Met	Val
				85					90					95
Asp	Met	Gly	Ala	Gly	Leu	Ala	Val	Val	Pro	Leu	Met	Gly	Leu	Leu
			100					105					110	Glu
Ser	Ile	Ala	Val	Ala	Lys	Ala	Phe	Ala	Ser	Gln	Asn	Asn	Tyr	Arg
			115				120					125		Ile
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Ser	Leu	Val	Ser	Ser	Tyr	Pro	Val	Thr	Gly	Ser	Phe	Gly	Arg	Thr
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Val	Asn	Ala	Gln	Ser	Gly	Val	Cys	Thr	Pro	Ala	Gly	Gly	Leu	Val
			165						170					175
Gly	Val	Leu	Val	Leu	Leu	Ser	Leu	Asp	Tyr	Leu	Thr	Ser	Leu	Phe
			180					185					190	Tyr
Tyr	Ile	Pro	Lys	Ser	Ala	Leu	Ala	Ala	Val	Ile	Ile	Met	Ala	Val
			195				200					205		Ala
Pro	Leu	Phe	Asp	Thr	Lys	Ile	Phe	Arg	Thr	Leu	Trp	Arg	Val	Lys
			210			215					220			Arg
Leu	Asp	Leu	Leu	Pro	Leu	Cys	Val	Thr	Phe	Leu	Leu	Cys	Phe	Trp
225					230					235				240
Val	Gln	Tyr	Gly	Ile	Leu	Ala	Gly	Ala	Leu	Val	Ser	Leu	Leu	Met

245 250 255
 Leu His Ser Ala Ala Arg Pro Glu Thr Lys Val Ser Glu Gly Pro Val
 260 265 270
 Leu Val Leu Gln Pro Ala Ser Gly Leu Ser Phe Pro Val Leu Cys Pro
 275 280 285
 Pro Leu Pro Ala Val Gln Asp Pro Lys Thr Leu Ser Pro Thr Leu Ser
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 Ser Pro Gln Gly Cys Arg His Leu
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<210> 3903
 <211> 598
 <212> DNA
 <213> Homo sapiens

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<210> 3904
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 3904
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 20 25 30
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 35 40 45
 Phe Ala Thr Ala Phe Leu Ser Ser Glu Pro Arg Leu Asp Ile Leu Ile
 50 55 60
 His Asn Ala Gly Ile Ser Ser Cys Gly Arg Thr Arg Glu Ala Phe Asn
 65 70 75 80
 Leu Leu Leu Arg Val Asn His Ile Gly Pro Phe Leu Leu Thr His Leu

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      100              105              110
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Arg Pro Val Val Leu Ala Ala Gly Ala Ala Ala Tyr Ala Asp Thr Lys
      130              135              140
Leu Ala Asn Val Leu Phe Ala Arg Glu Leu Ala Asn Gln Leu Glu Ala
      145              150              155              160
Thr Gly Val Thr Cys Tyr Ala Ala His Pro Gly Pro Val Asn Ser Glu
      165              170              175
Leu Phe Leu Arg His Val Pro Gly Trp Leu Arg Pro Leu Leu Arg Pro
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Leu Ala Trp Leu Val Pro Arg
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<210> 3905
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 <212> DNA
 <213> Homo sapiens

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<400> 3905
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<210> 3906
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 <212> PRT
 <213> Homo sapiens

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<400> 3906
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      20      25      30
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      35      40      45
Val Pro Gly Ala Tyr Phe Phe Ser Phe Thr Ala Gly Lys Ala Pro His
      50      55      60
Lys Ser Pro Ser Val Met Leu Val Arg Asn Arg Asp Glu Val Gln Ala
65      70      75      80
Leu Ala Phe Asp Glu Gln Arg Arg Pro Gly Ala Arg Arg Ala Ala Ser

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	85		90		95
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<210> 3907

<211> 4474

<212> DNA

<213> Homo sapiens

<400> 3907

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<210> 3908
 <211> 1373
 <212> PRT
 <213> Homo sapiens

<400> 3908

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		20					25						30		
Ser	Pro	Asp	Pro	Asp	Ala	Val	Ala	Asp	Pro	Gly	Ala	Leu	Trp	Leu	Ser
		35					40					45			
Thr	Lys	Arg	Leu	Lys	Met	Ser	Gly	Gly	Ala	Ser	Ala	Thr	Gly	Pro	Arg
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Ser Ala Gly Glu Ser Thr Thr Thr Val Ser Pro Phe Val Pro Gly Gly		
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Cys Thr Val Ile Ala Ile Leu Leu His Phe Leu Tyr Leu Cys Thr Phe		1920
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<211> 1435

<212> PRT

<213> Homo sapiens

<400> 3914

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Leu	Thr	Ser	Glu	Val	His	Met	Arg	Asp	Pro	Asn	Asn	Gln	Leu	His	Val
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Gln	Pro	Gly	Ala	Ile	Arg	Lys	Leu	Leu	Asn	Asp	Val	Val	Ser	Gly	Ser
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Thr	Phe	Leu	Gln	Ser	Met	Pro	Ala	Ser	Asp	His	Glu	Phe	Leu	Asn	His
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Tyr	Leu	Ala	Cys	Met	Leu	Val	Ala	Ser	Ser	Ser	Glu	Ala	Glu	Pro	Val
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Glu	Gln	Phe	Ser	Lys	Leu	Ser	Gln	Glu	Gln	His	Arg	Ile	Gln	His	Asn
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Ser	Asp	Tyr	Ser	Tyr	Pro	Lys	Trp	Phe	Ile	Pro	Asn	Thr	Leu	Lys	Tyr
		180						185					190		
Tyr	Val	Leu	Leu	His	Asp	Val	Ser	Ala	Gly	Asp	Glu	Gln	Arg	Ala	Glu
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Ser	Ile	Tyr	Glu	Glu	Met	Lys	Gln	Lys	Tyr	Gly	Thr	Gln	Gly	Cys	Tyr

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Ile Pro Asp Pro Trp Ser Gln Tyr Leu Gln Lys Asn Ser Ile Gln Asn		240
	245	250
Gln Glu Ser Tyr Glu Asp Gly Pro Cys Thr Ile Thr Ser Asn Lys Asn		255
	260	265
Ser Asp Asn Asn Leu Leu Ser Leu Asp Gly Leu Asp Asn Glu Val Lys		270
	275	280
Asp Gly Leu Pro Asn Asn Phe Arg Ala His Pro Leu Gln Leu Glu Gln		285
	290	295
Ser Ser Asp Pro Ser Asn Ser Ile Asp Gly Pro Asp His Leu Arg Ser		300
305	310	315
Ala Ser Ser Leu His Glu Thr Lys Lys Gly Asn Thr Gly Ile Ile His		320
	325	330
Gly Ala Cys Leu Thr Leu Thr Asp His Asp Arg Ile Arg Gln Phe Ile		335
	340	345
Gln Lys Phe Thr Phe Arg Gly Leu Leu Pro His Ile Glu Lys Thr Ile		350
	355	360
Arg Gln Leu Asn Asp Gln Leu Ile Ser Arg Lys Gly Leu Ser Arg Ser		365
	370	375
Leu Phe Ser Ala Thr Lys Lys Trp Phe Ser Gly Ser Lys Val Pro Glu		380
385	390	395
Lys Ser Ile Asn Asp Leu Lys Asn Thr Ser Gly Leu Leu Tyr Pro Pro		400
	405	410
Glu Ala Pro Glu Leu Gln Ile Arg Lys Met Ala Asp Leu Cys Phe Leu		415
	420	425
Val Gln His Tyr Asp Leu Ala Tyr Ser Cys Tyr His Thr Ala Lys Lys		430
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Asp Phe Leu Asn Asp Gln Ala Met Leu Tyr Ala Ala Gly Ala Leu Glu		445
	450	455
Met Ala Ala Val Ser Ala Phe Leu Gln Pro Gly Ala Pro Arg Pro Tyr		460
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Pro Ala His Tyr Met Asp Thr Ala Ile Gln Thr Tyr Arg Asp Ile Cys		480
	485	490
Lys Asn Met Val Leu Ala Glu Arg Cys Val Leu Leu Ser Ala Glu Leu		495
	500	505
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Ala Ala His Cys Phe Ile Asn Met Lys Ser Pro Met Val Arg Lys Tyr		540
545	550	555
Ala Phe His Met Ile Leu Ala Gly His Arg Phe Ser Lys Ala Gly Gln		560
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Lys Lys His Ala Leu Arg Cys Tyr Cys Gln Ala Met Gln Val Tyr Lys		575
	580	585
Gly Lys Gly Trp Ser Leu Ala Glu Asp His Ile Asn Phe Thr Ile Gly		590
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Arg Gln Ser Tyr Thr Leu Arg Gln Leu Asp Asn Ala Val Ser Ala Phe		605
	610	615
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625	630	635
Ala Phe Leu Arg Glu Tyr Leu Tyr Val Tyr Lys Asn Val Ser Gln Leu		640

3076

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Val Asp Val Glu Asn Thr Asn Thr Ser Glu Ala Gly Val Lys Glu Phe		
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Ala Thr Gln Ser Ser Glu Lys Tyr Thr Phe Ala Asp Ile Ile Phe Gly		
1170	1175	1180
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Arg Ser Leu Ser Ser Glu Leu Lys Lys Pro Gln Ala His Leu Pro Val		
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Cys Ser Glu Val Asp Leu Asn Ile Val Ile Leu Trp Lys Ala Tyr Val		
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Val Glu Asp Ser Lys Gln Leu Ile Leu Glu Gly Gln His His Val Ile		
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Leu Arg Thr Ile Gly Lys Glu Ala Phe Ser Tyr Pro Gln Lys Gln Glu		
1265	1270	1275
Pro Pro Glu Met Glu Leu Leu Lys Phe Phe Arg Pro Glu Asn Ile Thr		
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Val Ser Ser Arg Pro Ser Val Glu Gln Leu Ser Ser Leu Ile Lys Thr		
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Ser Leu His Tyr Pro Glu Ser Phe Asn His Pro Phe His Gln Lys Ser		
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Leu Cys Leu Val Pro Val Thr Leu Leu Leu Ser Asn Cys Ser Lys Ala		
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Asp Val Asp Val Ile Val Asp Leu Arg His Lys Thr Thr Ser Pro Glu		
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Ala Leu Glu Ile His Gly Ser Phe Thr Trp Leu Gly Gln Thr Gln Tyr		
1365	1370	1375
Lys Leu Gln Leu Lys Ser Gln Glu Ile His Ser Leu Gln Leu Lys Ala		
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Cys Phe Val His Thr Gly Val Tyr Asn Leu Gly Thr Pro Arg Val Phe		
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Ala Lys Leu Ser Asp Gln Val Thr Val Phe Glu Thr Ser Gln Gln Asn		
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<211> 1802

<212> DNA

<213> Homo sapiens

<400> 3915

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<210> 3916

<211> 342

<212> PRT

<213> Homo sapiens

<400> 3916

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Ala	Ser	Thr	Asp	Ala	Val	Ser	Ala	Leu	Leu	Glu	Gln	Thr	Ala	Val	Glu
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Leu	Glu	Lys	Arg	Gln	Glu	Gly	Arg	Ser	Ser	Thr	Gln	Thr	Leu	Glu	Asp
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Ser	Trp	Arg	Tyr	Glu	Glu	Thr	Ser	Glu	Asn	Glu	Ala	Val	Ala	Glu	Glu
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Glu	Glu	Glu	Glu	Val	Glu	Glu	Glu	Gly	Glu	Glu	Asp	Val	Phe	Thr	Glu
				85					90					95	
Lys	Ala	Ser	Pro	Asp	Met	Asp	Gly	Tyr	Pro	Ala	Leu	Lys	Val	Asp	Lys
			100					105					110		
Glu	Thr	Asn	Thr	Glu	Thr	Pro	Ala	Pro	Ser	Pro	Thr	Val	Val	Arg	Pro
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Lys	Asp	Arg	Arg	Val	Gly	Thr	Pro	Ser	Gln	Gly	Pro	Phe	Leu	Arg	Gly
130						135					140				
Ser	Thr	Ile	Ile	Arg	Ser	Lys	Thr	Phe	Ser	Pro	Gly	Pro	Gln	Ser	Gln
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Tyr	Val	Cys	Arg	Leu	Asn	Arg	Ser	Asp	Ser	Asp	Ser	Ser	Thr	Leu	Ser
				165					170					175	
Lys	Lys	Pro	Pro	Phe	Val	Arg	Asn	Ser	Leu	Glu	Arg	Arg	Ser	Val	Arg
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210						215					220				
Gln	Ala	Thr	Arg	Thr	Trp	His	Ser	Gln	Leu	Thr	Gln	Glu	Ile	Ser	Val
225					230					235				240	
Leu	Lys	Glu	Leu	Lys	Glu	Gln	Leu	Glu	Gln	Ala	Lys	Ser	His	Gly	Glu
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Lys	Glu	Leu	Pro	Gln	Trp	Leu	Arg	Glu	Asp	Glu	Arg	Phe	Arg	Leu	Leu
		260						265					270		
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		275					280						285		
Glu	Leu	Gln	Thr	Asp	Lys	Met	Met	Arg	Ala	Ala	Ala	Lys	Asp	Val	His
	290					295						300			
Arg	Leu	Arg	Gly	Gln	Ser	Cys	Lys	Glu	Pro	Pro	Glu	Val	Gln	Ser	Phe
305					310					315				320	
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330

335

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<211> 597
<212> DNA
<213> Homo sapiens

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<210> 3918
<211> 152
<212> PRT
<213> Homo sapiens

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35 40 45
Met Glu Glu Val Leu Leu Leu Gly Leu Lys Asp Lys Glu Gly Tyr Thr
50 55 60
Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly Leu Arg Gly Gly Ile Leu
65 70 75 80
Ile Glu Leu Ala Met Arg Gly Arg Ile Tyr Leu Glu Pro Pro Thr Met
85 90 95
Arg Lys Lys Arg Leu Leu Asp Arg Lys Val Leu Leu Lys Ser Asp Ser
100 105 110
Pro Thr Gly Asp Val Leu Leu Asp Glu Thr Leu Lys His Ile Lys Ala
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<210> 3920
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<400> 3920

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Leu Thr Gln Glu Arg Asp Tyr Leu Gln Ala Gln His Pro Pro Ser Pro
 35          40          45
Ile Lys Ser Ser Ser Ala Asp Ser Thr Pro Ser Pro Thr Ser Ser Leu
 50          55          60
Ser Ser Glu Asp Lys Gln His Leu Ala Val Glu Leu Ala Asp Thr Lys
 65          70          75          80
Ala Arg Leu Arg Arg Val Arg Gln Glu Leu Glu Asp Lys Thr Glu Gln
 85          90          95
Leu Val Asp Thr Arg His Glu Val Asp Gln Leu Val Leu Glu Leu Gln
100          105          110
Lys Val Lys Gln Glu Asn Ile Gln Leu Ala Ala Asp Ala Arg Ser Ala
115          120          125
Arg Ala Tyr Arg Asp Glu Leu Asp Ser Leu Arg Glu Lys Ala Asn Arg
130          135          140
Val Glu Arg Leu Glu Leu Glu Leu Thr Arg Cys Lys Glu Lys Leu His
145          150          155          160
Asp Val Asp Phe Tyr Lys Ala Arg Met Glu Glu Leu Arg Glu Asp Asn
165          170          175
Ile Ile Leu Ile Glu Thr Lys Ala Met Leu Glu Glu Gln Leu Thr Ala
180          185          190
Ala Arg Ala Arg Gly Asp Lys Val His Glu Leu Glu Lys Glu Asn Leu
195          200          205
Gln Leu Lys Ser Lys Leu His Asp Leu Glu Leu Asp Arg Asp Thr Asp
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Lys Lys Arg Ile Glu Glu Leu Leu Glu Glu Asn Met Val Leu Glu Ile
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Ala Gln Lys Gln Ser Met Asn Glu Ser Ala His Leu Gly Trp Glu Leu
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Phe Val Phe Glu Leu Asn Glu Cys Ala Ser Ser Arg Ile Leu Lys Leu
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325          330          335
Leu Glu Arg Glu Lys Gln Ser Asn Gln Asp Leu Glu Thr Leu Ser Glu
340          345          350
Glu Leu Ile Arg Glu Lys Glu Gln Leu Gln Ser Asp Met Glu Thr Leu
355          360          365
Lys Ala Asp Lys Ala Arg Gln Ile Lys Asp Leu Glu Gln Glu Lys Asp

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370 375 380
 His Leu Asn Arg Ala Met Trp Ser Leu Arg Glu Arg Ser Gln Val Ser
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 <211> 413
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 <213> Homo sapiens

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 35 40 45
 Asp Ser Val Gly Pro Ile Pro Ala Pro Arg Gly Asp Gly Cys Cys Arg
 50 55 60
 Asp Val Gln Ala Val Glu Gly Ser Arg Glu Trp Ala Trp Arg Ser Ala
 65 70 75 80
 Ser Leu Ala Pro Leu Leu Asp Ala Phe Leu Gln Pro Leu Glu Leu Arg
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<212> DNA

<213> Homo sapiens

<400> 3923

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<213> Homo sapiens

<400> 3924

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Ser Glu Tyr Thr Gly Pro Thr Ser Ala Asp Leu Asp His Phe Pro Ser
35           40           45
Val Ser Gln Thr Lys Ala Glu Gln Asp Ser Asp Asn Lys Ser Ser Thr
50           55           60
Glu Ile Pro Leu Glu Thr Cys Cys Ser Ser Glu Leu Lys Gly Gly Gly
65           70           75           80
Ser Gly Thr Ser Leu Glu Arg Glu Gln Phe Glu Gly Leu Gly Ser Thr
85           90           95
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<211> 683

<212> PRT

<213> Homo sapiens

<400> 3926

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		20					25						30		
Thr	Arg	Pro	Gln	Pro	Val	Leu	Pro	Leu	Leu	Asp	Leu	Asn	Asn	Gln	Ser
		35					40					45			
Val	Gly	Ile	Glu	Gly	Gly	Ala	Arg	Lys	Gly	Val	Ser	Gln	Lys	Asn	Asn
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Asp	Leu	Thr	Ser	Cys	Cys	Phe	Ser	Asp	Ala	Lys	Thr	Met	Tyr	Glu	Val
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Phe	Gln	Arg	Gly	Leu	Ala	Val	Ser	Asp	Asn	Gly	Pro	Cys	Leu	Gly	Tyr
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Ser	Ser	Pro	Asp	Gln	Phe	Val	Gly	Ile	Phe	Ala	Gln	Asn	Arg	Pro	Glu
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Trp	Ile	Ile	Ser	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Ala	Val
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3088

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<212> DNA
<213> Homo sapiens
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 <212> PRT
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 35 40 45
 Pro Met Pro Arg Leu Pro Ser Leu Trp Pro Leu Ser Leu Pro Leu Arg
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 Ser Leu Ser Ser Pro His Arg Val Gln Gly Leu Gly Pro Pro Arg Arg
 65 70 75 80
 Leu Lys Ser Gln Leu Leu Pro Arg Phe Phe Trp Arg Arg Gln Gln Glu
 85 90 95
 Pro Leu Ser Ser Phe Pro Gly Arg Asn Glu Gly Gly Ser Glu Met Glu
 100 105 110
 Ile Leu Gly Val Cys Pro Val Ser Pro Gly Ala Leu Ser Tyr Met Glu
 115 120 125
 Ser Pro Thr Gly Phe Trp Arg Pro Arg Glu Ala Ser Ser Leu Glu Leu
 130 135 140
 Ala Lys Gly Ile Ser Lys Arg Arg His Phe Leu Pro Ala Pro Ala Leu
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 Thr Leu Ala Ile
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<210> 3929
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 3929

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<211> 115

<212> PRT

<213> Homo sapiens

<400> 3930

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Gln	Ser	Glu	Asn	Glu	Ala	Ser	Pro	Val	Lys	Arg	Pro	Arg	Leu	Leu	Glu
		35					40				45				
Asn	Thr	Glu	Arg	Ser	Glu	Glu	Thr	Ser	Arg	Ser	Lys	Gln	Lys	Ser	Arg
	50				55					60					
Arg	Arg	Cys	Phe	Gln	Cys	Gln	Thr	Lys	Leu	Glu	Leu	Val	Gln	Gln	Glu
65				70					75					80	
Leu	Gly	Ser	Cys	Arg	Cys	Gly	Tyr	Val	Phe	Cys	Met	Leu	His	Arg	Leu
			85					90					95		
Pro	Glu	Gln	His	Asp	Cys	Thr	Phe	Asp	His	Met	Gly	Val	Ala	Gly	Arg
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Ser	His	His													
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<210> 3931

<211> 3568

<212> DNA

<213> Homo sapiens

<400> 3931

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 <211> 4082

<212> DNA

<213> Homo sapiens

<400> 3933

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<211> 130

<212> PRT

<213> Homo sapiens

<400> 3934

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Ser	Asp	Ser	Asn	Met	Ser	Phe	Val	Glu	Phe	Val	Glu	Leu	Phe	Lys	Ser
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<211> 1103

<212> DNA

<213> Homo sapiens

<400> 3935

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<212> PRT

<213> Homo sapiens

<400> 3936

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 65           70           75           80
Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
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Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
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Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
 115          120          125
Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
 130          135          140
Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
 145          150          155          160
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 180          185          190
Gln Pro Trp Leu Cys Leu Ala Trp Gly Gly Gly Gln Ala Val Asp Ile
 195          200          205
Ala Val Trp Leu Leu Gly Met Val Gly Gly Thr Gly Ile Trp Ala Glu
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<211> 744

<212> DNA

<213> Homo sapiens

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<211> 154

<212> PRT

<213> Homo sapiens

<400> 3938

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Lys	Glu	Gln	Gly	Gly	Gly	Gln	Asp	Pro	Ala	Ala	Ile	Ala	Gly	His	
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Ser	Ala	Gly	Gly	Ser	Asp	His	Ala	Gly	Glu	Arg	Gly	Leu	Xaa	Gly	Arg
			85						90					95	
Thr	Gly	Trp	Leu	Ala	Ala	Lys	Ala	Ala	Pro	Ala	Gly	Gly	His	Arg	Glu
			100					105					110		
Thr	Gly	Leu	Ala	Ser	Val	Gly	Ala	Gly	Pro	Trp	Leu	Gly	Arg	Arg	Asn
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<210> 3939

<211> 490

<212> DNA

<213> Homo sapiens

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<211> 62

<212> PRT

<213> Homo sapiens

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<210> 3941

<211> 2077

<212> DNA

<213> Homo sapiens

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720
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960
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1080
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1140
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1260
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1320
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1380
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1680
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1920
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2077

<210> 3942

<211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3942
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 20 25 30
 Gln Glu Arg Leu Arg Leu Thr Arg Gly Trp Ser Pro Gln Gly Gly Cys
 35 40 45
 Gly Ala Arg Ser Gln Ser Thr Pro Ser Ser Asp Thr Leu Pro Pro Ala
 50 55 60
 Leu Leu Gly Ser Pro Ala Ser Val Ser Gly Thr Gly Gly Thr Asp Met
 65 70 75 80
 Ser Ser Ala Asn Ala His Ser Ala Leu
 85

<210> 3943
 <211> 1524
 <212> DNA
 <213> Homo sapiens

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 120
 gggaagccgc agccgcagga cgaggacgac gcggaggagg aggaggagga ggatgagctg
 180
 gtggggctag cggactacgg agacggggccc gactcctccg acgccgatcc ggacagcggc
 240
 acagaggagg gagttctgga cttcagtgac cccttcagca ctgaagtga gccgagaatc
 300
 ctgctcatgg gcctgaggag aagcggcaag tcgtctattc agaaagttgt ctttcacaaa
 360
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 420
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 480
 gaccctacat ttgactatga gatgatcttc cggggaacag gagcattgat atttgtcatt
 540
 gacgcacagg atgactacat ggaggcttta acaagacttc acattactgt ttctaaagcc
 600
 tacaaagtta acccagacat gaattttgag gtttttattc ataaagttga tggctctgtc
 660
 gatgatcaca aatagaaac acagagggac attcatcaaa gggccaatga tgaccttgca
 720
 gatgctggat tagaaaaaat tcacctcagc ttttatctga caagcatata tgatcattca
 780
 atatttgaag ctttttagcaa agttgttcag aaactgattc cacaactccc aactctggag
 840
 aatttgctga acatctttat ctcaaattct ggaattgaaa aggcatctct atttgatgtg
 900

gtcagtaaaa tttatattgc aactgatagt actccggtgg atatgcaaac ctatgagctc
 960
 tgctgtgata tgatagatgt ggttattgac atctcttgta tttatgggtct caaagaagat
 1020
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 1080
 gtgcttttatt taaaagaggt gacaaagttc ctggctctcg tttgctttgt cagagaggaa
 1140
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 1200
 gaagtttttg aggtgagaat gaaagtagta aaatctcgaa aggttcagaa tcggctgcag
 1260
 aagaaaaaga gagccacccc taatgggacc cctagagtgc tgctgtaggt gaggtttcag
 1320
 gaatgtcttt tgaaatcaga cttatccat gaggctgctg cgccatggtg cactaaagga
 1380
 agaggaagaa ggagattggg acacatacca ttgatttggt gttaaaaaaa aaaaattcct
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 1500
 aaaaaaaaaa aaaaaaaaaa aaaa
 1524

<210> 3944

<211> 435

<212> PRT

<213> Homo sapiens

<400> 3944

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Arg	Leu	Gly	Pro	Thr	Pro	Gly	Pro	Pro	Pro	Ser	Pro	Gly	Arg	Pro	Ala
			20					25					30		
Val	Gly	Thr	Met	Ser	Gln	Val	Leu	Gly	Lys	Pro	Gln	Pro	Gln	Asp	Glu
		35					40					45			
Asp	Asp	Ala	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Leu	Val	Gly	Leu	Ala
	50					55					60				
Asp	Tyr	Gly	Asp	Gly	Pro	Asp	Ser	Ser	Asp	Ala	Asp	Pro	Asp	Ser	Gly
65					70				75					80	
Thr	Glu	Glu	Gly	Val	Leu	Asp	Phe	Ser	Asp	Pro	Phe	Ser	Thr	Glu	Val
				85					90					95	
Lys	Pro	Arg	Ile	Leu	Leu	Met	Gly	Leu	Arg	Arg	Ser	Gly	Lys	Ser	Ser
			100				105						110		
Ile	Gln	Lys	Val	Val	Phe	His	Lys	Met	Ser	Pro	Asn	Glu	Thr	Leu	Phe
		115					120						125		
Leu	Glu	Ser	Thr	Asn	Lys	Ile	Cys	Arg	Glu	Asp	Val	Ser	Asn	Ser	Ser
	130					135					140				
Phe	Val	Asn	Phe	Gln	Ile	Trp	Asp	Phe	Pro	Gly	Gln	Ile	Asp	Phe	Phe
145				150				155						160	
Asp	Pro	Thr	Phe	Asp	Tyr	Glu	Met	Ile	Phe	Arg	Gly	Thr	Gly	Ala	Leu
			165					170						175	
Ile	Phe	Val	Ile	Asp	Ala	Gln	Asp	Asp	Tyr	Met	Glu	Ala	Leu	Thr	Arg
			180					185					190		
Leu	His	Ile	Thr	Val	Ser	Lys	Ala	Tyr	Lys	Val	Asn	Pro	Asp	Met	Asn

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<210> 3945
<211> 696
<212> DNA
<213> Homo sapiens
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120
cgggcgcgcc cagcagtagc accgcccgcg cccgcccctg gacacttgta agtttcgatt
180
tccgatttcc gcggaaccga gtcccgcgcc gcggcagagc cagcacagcc agcgcgccat
240
ggcggaccgc gaggtgtgct gcttcacac caaaatcctg tgcgcccacg ggggccgcac
300
ggccctggac gcgctgctcc aggagatcgc gctgtctgag ccgcagctct gtgaggtgct
360
gcaggtggcc gggcccgcacc gctttgtggt gttggagacc ggcggcgagg ccggggatcac
420
ccgatacggtg gtggccacca ctcgagcccg ggtctgccgt cgcaagtact gccagagacc
480

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ctgcgataac ctgcatctct gcaaactcaa cttgctgggc cggtgcaact attcgagtc
 540
 cgagcggaat ttatgcaaattttctcatga gggtctctca gaagagaact tcaaagtcct
 600
 gaaaaatcac gaactctctg gactgaacaa agaggaatta gcagtgtctc tcttccaaag
 660
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 696

<210> 3946

<211> 165

<212> PRT

<213> Homo sapiens

<400> 3946

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Gly	Ser	Ser	Gly	Gly	His	His	Arg	Ser	Gly	Asp	Pro	Gly	Leu	Ala	Ala
			20					25					30		
Gly	Leu	Gln	His	His	Lys	Ala	Val	Gly	Pro	Gly	His	Leu	Gln	His	Leu
		35					40					45			
Thr	Glu	Leu	Arg	Leu	Arg	Gln	Arg	Asp	Leu	Leu	Glu	Gln	Arg	Val	Gln
	50					55					60				
Gly	His	Ala	Ala	Pro	Val	Gly	Ala	Gln	Asp	Phe	Gly	Asp	Glu	Ala	Ala
65					70				75					80	
His	Leu	Arg	Val	Arg	His	Gly	Ala	Leu	Ala	Val	Leu	Ala	Leu	Pro	Arg
			85					90						95	
Arg	Gly	Thr	Arg	Phe	Arg	Gly	Asn	Arg	Lys	Ser	Lys	Leu	Thr	Ser	Val
		100					105						110		
Gln	Gly	Arg	Ala	Arg	Ala	Val	Leu	Leu	Leu	Gly	Ala	Pro	Gly	Val	Ser
	115					120						125			
Glu	Gly	Ala	Leu	Ser	Val	Ala	Val	Ser	Pro	Ala	Gln	Arg	Ser	Thr	Leu
	130					135					140				
Gly	Ser	Gln	Val	Lys	Arg	Leu	Asp	Leu	Thr	Asp	Arg	Val	Leu	Val	Ala
145				150					155					160	
Gly	Leu	Gln	Pro	Ala											
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<210> 3947

<211> 400

<212> DNA

<213> Homo sapiens

<400> 3947

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 ctgcagggca tcatcgacga cttggtggtg ctgacagcag aaccccacaa actgcctccc
 180
 gccagcgagc aggtaatcaa agacctaaag ggctcggact acagctggtc ctaccagacc
 240
 ccaccctcat caccagcag ctccagctcc cggaagtcca gcatgtgcag tgccccagc
 300

agcagtagca gtgccaaggg tggcggaagc cccatggcct gggggtgccc aaacatactc
 360
 acccagttcc acctgtcgct accgcagcct ggcgcagcca
 400

<210> 3948
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3948
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 Phe Cys Thr Phe Ile Thr Phe Leu Gln Pro Val Val Asn Gly Glu Leu
 20 25 30
 Thr Met Leu Gly Glu Ile Thr His Leu Gln Gly Ile Ile Asp Asp Leu
 35 40 45
 Val Val Leu Thr Ala Glu Pro His Lys Leu Pro Pro Ala Ser Glu Gln
 50 55 60
 Val Ile Lys Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr
 65 70 75 80
 Pro Pro Ser Ser Pro Ser Ser Ser Ser Ser Arg Lys Ser Ser Met Cys
 85 90 95
 Ser Ala Pro Ser Ser Ser Ser Ser Ala Lys Gly Gly Gly Ser Pro Met
 100 105 110
 Ala Trp Gly Cys Pro Asn Ile Leu Thr Gln Phe His Leu Ser Leu Pro
 115 120 125
 Gln Pro Gly Ala Ala
 130

<210> 3949
 <211> 1462
 <212> DNA
 <213> Homo sapiens

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 120
 ccaccatctt tctggctgca agagtcaggg gtcagaatgg ggggcagcca ccaactgtga
 180
 aaagagttgg gggaggaacc cctgaaagga gagccagaaa tgggggagct ccaaactctt
 240
 tgtgtcagct ctgtccaaat ctctaactga cttgtgaact aaaaagaaag gtttctacca
 300
 tcagcagact gtcaccata gacatttaca cagtattttg gtttggagtt cttcctaata
 360
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 420
 attgggtaag atagctgggt cagctgtcct tggatggatc ccaaacta tgctcctttc
 480
 caggcctgag aatcgccgaa cactgtccaa cacaatgtga tcaccaaca tatcacatgc
 540

atcactgagc tgcaccaccc ttttcttccct cattgctttc aagagctcat acttatagtg
 600
 ctccacttct tttgcggtgc tgacaagcac agcaacatcc tttggagaat agccccctatc
 660
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 720
 cttaattcgt aaggttcctt gaacaccctg ggaccattcg gcttcaggaa atacctcgag
 780
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 840
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 900
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 960
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 1020
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 1080
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 1320
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 1440
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 1462

<210> 3950

<211> 351

<212> PRT

<213> Homo sapiens

<400> 3950

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Ser	Leu	Leu	Ser	Asp	Gln	Leu	Gly	Cys	Glu	Val	Leu	Asn	Leu	Leu	Thr
		20					25					30			
Ala	Gln	Gln	Tyr	Glu	Ile	Phe	Ser	Arg	Ser	Leu	Arg	Lys	Asn	Arg	Glu
		35				40						45			
Leu	Phe	Val	His	Gly	Leu	Pro	Gly	Ser	Gly	Lys	Asn	Ile	Met	Ala	Met
	50				55					60					
Lys	Ile	Met	Glu	Lys	Ile	Arg	Asn	Val	Phe	His	Cys	Glu	Ala	His	Arg
65			70					75				80			
Ile	Leu	Tyr	Val	Cys	Glu	Asn	Gln	Pro	Leu	Arg	Asn	Phe	Ile	Ser	Asp
		85					90					95			
Arg	Asn	Ile	Cys	Arg	Ala	Glu	Thr	Arg	Glu	Thr	Phe	Leu	Arg	Glu	Lys
		100				105					110				
Phe	Glu	His	Ile	Gln	His	Ile	Val	Ile	Asp	Glu	Ala	Gln	Asn	Phe	Arg

115	120	125
Thr Glu Asp Gly Asp Trp Tyr Gly Lys Ala Lys Ser Ile Thr Gln Arg		
130	135	140
Glu Lys Asp Cys Pro Gly Val Leu Trp Ile Phe Leu Asp Tyr Phe Gln		
145	150	155
Thr Ser His Leu Gly His Ser Gly Leu Pro Pro Leu Ser Asp Gln Tyr		
165	170	175
Pro Arg Glu Glu Leu Thr Arg Ile Val Arg Asn Ala Asp Glu Ile Ala		
180	185	190
Glu Tyr Leu Gln Lys Glu Met Gln Leu Ile Ile Glu Asn Pro Pro Ile		
195	200	205
Asn Ile Pro Thr Gly Cys Leu Glu Val Phe Pro Glu Ala Glu Trp Ser		
210	215	220
Gln Gly Val Gln Gly Thr Leu Arg Ile Lys Lys Tyr Leu Thr Val Glu		
225	230	235
Gln Ile Met Thr Cys Val Ala Asp Thr Cys Arg Arg Phe Phe Asp Arg		
245	250	255
Gly Tyr Ser Pro Lys Asp Val Ala Val Leu Val Ser Thr Ala Lys Glu		
260	265	270
Val Glu His Tyr Lys Tyr Glu Leu Lys Ala Met Arg Lys Lys Arg		
275	280	285
Val Val Gln Leu Ser Asp Ala Cys Asp Met Leu Gly Asp His Ile Val		
290	295	300
Leu Asp Ser Val Arg Arg Phe Ser Gly Leu Glu Arg Ser Ile Val Phe		
305	310	315
Gly Ile His Pro Arg Thr Ala Asp Pro Ala Ile Leu Pro Asn Ile Leu		
325	330	335
Ile Cys Leu Ala Ser Arg Ala Lys Gln His Leu Tyr Ile Phe Leu		
340	345	350

<210> 3951
 <211> 1012
 <212> DNA
 <213> Homo sapiens

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 120
 gtccaggagt tccaggttcc ggattatggt ccatggcagc agtccaagca ggaaaccaag
 180
 ccatctactc tgctccagt ccaacaagcc aacagccttc atacaagcaa aatgaagact
 240
 ttgactaggg tccaaccagt gtttcacttc aagcccacta cggtggtgac aagctgccag
 300
 ccgaagaatc caagagaact acatagaagg cggaagttgg accctgggaa gatgcatgcc
 360
 aaaatctggt taatgaagac ctgcgtcagg agcgggaggg ccgctctgcg agagctccga
 420
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 480
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 540

atcatcgaca tcttggagta ctcaaacaag aagaggctgc agcaattgaa atctgagctt
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 660
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 720
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 780
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 900
 gcgcagaaag gtcctgggaa tccttgctcg acaagattca gaagaagaag aaaaaaattc
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 1012

<210> 3952

<211> 188

<212> PRT

<213> Homo sapiens

<400> 3952

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Thr	Val	Val	Thr	Ser	Cys	Gln	Pro	Lys	Asn	Pro	Arg	Glu	Leu	His	Arg
			20					25					30		
Arg	Arg	Lys	Leu	Asp	Pro	Gly	Lys	Met	His	Ala	Lys	Ile	Trp	Leu	Met
		35					40					45			
Lys	Thr	Ser	Leu	Arg	Ser	Gly	Arg	Ala	Ala	Leu	Arg	Glu	Leu	Arg	Ser
	50					55					60				
Arg	Glu	Asn	Phe	Leu	Ser	Lys	Leu	Asn	Arg	Glu	Leu	Ile	Glu	Thr	Ile
65					70					75				80	
Gln	Glu	Met	Glu	Asn	Ser	Thr	Thr	Leu	His	Val	Arg	Ala	Leu	Leu	Gln
				85						90				95	
Gln	Gln	Asp	Thr	Leu	Ala	Thr	Ile	Ile	Asp	Ile	Leu	Glu	Tyr	Ser	Asn
			100					105					110		
Lys	Lys	Arg	Leu	Gln	Gln	Leu	Lys	Ser	Glu	Leu	Gln	Glu	Trp	Glu	Glu
		115					120					125			
Lys	Lys	Lys	Cys	Lys	Met	Ser	Tyr	Leu	Glu	Gln	Gln	Ala	Glu	Gln	Leu
		130				135					140				
Asn	Ala	Lys	Ile	Glu	Lys	Thr	Gln	Glu	Glu	Val	Asn	Phe	Leu	Ser	Thr
145					150					155				160	
Tyr	Met	Asp	His	Glu	Tyr	Ser	Ile	Lys	Ser	Val	Gln	Ile	Ser	Thr	Leu
			165						170					175	
Met	Arg	His	Cys	Ser	Arg	Leu	Arg	Thr	Ala	Ser	Arg				
			180					185							

<210> 3953

<211> 2900

<212> DNA

<213> Homo sapiens

<400> 3953

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120
gacaagctca ggtgcttggt ttaaggaaag gggctactag agtcttacca acagcgagcc
180
caggtgggag atgaaacagg tactcccca aataggtcat ccgagggagg aaaactgatg
240
gagagcacia tgtgctctga gcgtttttaa tggttttaag cttttaaatg atttcttcaa
300
ggccgagcag cagcagcaaa ggtgtggctt aaaggattaa ggggggtttct gctggcacct
360
agaatgaagt tactctatta ctaatcaagc cgagaggagg cccactatgc ccccgtttat
420
catcctttcc cagttccttt ttgctggtca caaaacgatg ctcatcaatc ccacctaaag
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caggaggcca ggagcccagc ctctttaga aacagcgagg gtataactgc cctcccgttc
540
tgccccaag acgaaggagg actctcgga gccaaagaa gtttaagaag tctttctgga
600
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<212> PRT

<213> Homo sapiens

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 Arg Cys Ile Asp Ile Ala Asp Tyr Lys Glu Ser Phe Asn Thr Ile Ser
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<211> 440

<212> PRT

<213> Homo sapiens

<400> 3958

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<211> 306

<212> PRT

<213> Homo sapiens

<400> 3962

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			20					25					30		
Thr	Val	Met	Tyr	Ile	Cys	His	Pro	Glu	Ser	Lys	His	Glu	Ile	Leu	Ser

35 40 45
 Val Ala Glu Val Thr Thr Cys Glu Tyr Glu Val Val Ile Leu Thr Pro
 50 55 60
 Leu Leu Cys Ser His Pro Lys Tyr Arg Phe Arg Ala Ser Pro Val Asn
 65 70 75 80
 Asp Ile Phe Cys Gln Ser Leu Pro Gly Ser Pro Phe Lys Pro Leu Thr
 85 90 95
 Leu Arg Gln Leu Glu Gln Gln Glu Glu Ile Leu Arg Val Pro Phe Arg
 100 105 110
 Arg Asn Lys Glu Glu Asp Leu Gln Ser Thr Lys Glu Glu Arg Phe Pro
 115 120 125
 Ala Ile His Lys Ser Ile Ala Ile Gly Ser Gln Pro Val Leu Thr Val
 130 135 140
 Gly Thr Thr His Ile Ser Lys Leu Thr Asp Asp Gln Leu Ile Lys Glu
 145 150 155 160
 Phe Leu Ser Gly Ser Tyr Cys Phe Arg Gly Gly Val Gly Trp Trp Lys
 165 170 175
 Tyr Glu Phe Cys Tyr Gly Lys His Val His Gln Tyr His Glu Asp Lys
 180 185 190
 Asp Ser Gly Lys Thr Ser Val Val Val Gly Thr Trp Asn Gln Glu Glu
 195 200 205
 His Ile Glu Trp Ala Lys Lys Asn Thr Ala Arg Ala Tyr His Leu Gln
 210 215 220
 Asp Asp Gly Thr Gln Thr Val Arg Met Val Ser His Phe Tyr Gly Asn
 225 230 235 240
 Gly Asp Ile Cys Asp Ile Thr Asp Lys Pro Arg Gln Val Thr Val Lys
 245 250 255
 Leu Lys Cys Lys Glu Ser Asp Ser Pro His Ala Val Thr Val Tyr Met
 260 265 270
 Leu Glu Pro His Ser Cys Gln Tyr Ile Leu Gly Val Glu Ser Pro Val
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 Ile Cys Lys Ile Leu Asp Thr Ala Asp Glu Asn Gly Leu Leu Ser Leu
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 Pro Asn
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<210> 3963

<211> 1513

<212> DNA

<213> Homo sapiens

<400> 3963

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 300
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 360

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 660
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 780
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 1380
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<210> 3964

<211> 436

<212> PRT

<213> Homo sapiens

<400> 3964

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Lys	Gly	Gly	Asn	Lys	Gln	Glu	Glu	Ala	Trp	Ile	Asn	Pro	Phe	Val	Lys
			20					25					30		
Gln	Phe	Ser	Asn	Ile	Ser	Phe	Ser	Arg	Asp	Ser	Pro	Glu	Glu	Asn	Val
		35					40					45			
Gln	Ser	Asn	Lys	Met	Asp	Leu	Ser	Gly	Gly	Met	Leu	Gln	Asp	Lys	Arg

50 55 60
 Met Glu Ile Asp Lys His Ser Leu Asn Ile Gly Asp Tyr Asn Arg Thr
 65 70 75 80
 Val Gly Lys Gly Pro Gly Ser Arg Pro Gln Ile Ser Lys Glu Ser Ser
 85 90 95
 Met Glu Arg Asn Pro Tyr Phe Asp Lys Asn Gly Asn Pro Ser Met Phe
 100 105 110
 Gly Val Gly Asn Thr Ala Ala Gln Pro Arg Gly Met Gln Gln Pro Pro
 115 120 125
 Ala Gln Pro Leu Ser Ser Ser Gln Pro Asn Leu Arg Ala Gln Val Pro
 130 135 140
 Pro Pro Leu Leu Ser Pro Gln Val Pro Val Ser Leu Leu Lys Tyr Ala
 145 150 155 160
 Pro Asn Asn Gly Gly Leu Asn Pro Leu Phe Gly Pro Gln Gln Val Ala
 165 170 175
 Met Leu Asn Gln Leu Ser Gln Leu Asn Gln Leu Ser Gln Ile Ser Gln
 180 185 190
 Leu Gln Arg Leu Leu Ala Gln Gln Gln Arg Ala Gln Ser Gln Arg Ser
 195 200 205
 Val Pro Ser Gly Asn Arg Pro Gln Gln Asp Gln Gln Gly Arg Pro Leu
 210 215 220
 Ser Val Gln Gln Gln Met Met Gln Gln Ser Arg Gln Leu Asp Pro Asn
 225 230 235 240
 Leu Leu Val Lys Gln Gln Thr Pro Pro Ser Gln Gln Gln Pro Leu His
 245 250 255
 Gln Pro Ala Met Lys Ser Phe Leu Asp Asn Val Met Pro His Thr Thr
 260 265 270
 Pro Glu Leu Gln Lys Gly Pro Ser Pro Ile Asn Ala Phe Ser Asn Phe
 275 280 285
 Pro Ile Gly Leu Asn Ser Asn Leu Asn Val Asn Met Asp Met Asn Ser
 290 295 300
 Ile Lys Glu Pro Gln Ser Arg Leu Arg Lys Trp Thr Thr Val Asp Ser
 305 310 315 320
 Ile Ser Val Asn Thr Ser Leu Asp Gln Asn Ser Ser Lys His Gly Ala
 325 330 335
 Ile Ser Ser Gly Phe Arg Leu Glu Glu Ser Pro Phe Val Pro Tyr Asp
 340 345 350
 Phe Met Asn Ser Ser Thr Ser Pro Ala Ser Pro Pro Gly Ser Ile Gly
 355 360 365
 Asp Gly Trp Pro Arg Ala Lys Ser Pro Asn Gly Ser Ser Ser Val Asn
 370 375 380
 Trp Pro Pro Glu Phe Arg Pro Gly Glu Pro Trp Lys Gly Tyr Pro Asn
 385 390 395 400
 Ile Asp Pro Glu Thr Asp Pro Tyr Val Thr Pro Gly Ser Val Ile Asn
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 Asn Leu Pro Ile Asn Thr Val Arg Glu Val Asp His Leu Arg Asp Arg
 420 425 430
 Asn Ser Gly Thr
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<210> 3965

<211> 2850

<212> DNA

<213> Homo sapiens

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120
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180
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240
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300
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1560

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 2700
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 2820
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 2850

<210> 3966

<211> 782

<212> PRT

<213> Homo sapiens

<400> 3966

Met Gly Pro Pro Leu Ala Pro Arg Pro Ala His Val Pro Gly Glu Ala
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 Gly Pro Arg Arg Thr Arg Glu Ser Arg Pro Gly Ala Val Ser Phe Ala

3128

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Gly Pro Tyr Ile Phe Leu Glu Gly Lys Lys Pro Leu Leu Tyr Phe Pro					
465		470		475	480
Asp Thr Pro Pro Pro Pro Leu Glu Lys Ala Ala Glu Ala Ala Leu Phe					
	485		490		495
Lys Gly Lys Trp Asp Asp Glu Ala Arg Glu Met Ala Pro Pro Pro Ala					
	500		505		510
Pro Leu Leu Ala Pro Arg Pro Gly Glu Thr Arg Pro Gly Cys Arg Lys					
	515		520		525
Pro Gly Thr Val Ser Phe Ala Asp Val Ala Val Tyr Phe Ser Pro Glu					
	530		535		540
Glu Trp Gly Cys Leu Arg Pro Ala Gln Arg Ala Leu Tyr Arg Asp Val					
545		550		555	560
Met Gln Glu Thr Tyr Gly His Leu Gly Ala Leu Gly Phe Pro Gly Pro					
	565		570		575
Lys Pro Ala Leu Ile Ser Trp Met Glu Gln Glu Ser Glu Ala Trp Ser					
	580		585		590
Pro Ala Ala Gln Asp Pro Glu Lys Gly Glu Arg Leu Gly Gly Ala Arg					
	595		600		605
Arg Gly Asp Val Pro Asn Arg Lys Glu Glu Glu Pro Glu Glu Val Pro					
	610		615		620
Arg Ala Lys Gly Pro Arg Lys Ala Pro Val Lys Glu Ser Pro Glu Val					
625		630		635	640
Leu Val Glu Arg Asn Pro Asp Pro Ala Ile Ser Val Ala Pro Ala Arg					
	645		650		655
Ala Gln Pro Pro Lys Asn Ala Ala Trp Asp Pro Thr Thr Gly Ala Gln					
	660		665		670
Pro Pro Ala Pro Ile Pro Ser Met Asp Ala Gln Ala Gly Gln Arg Arg					
	675		680		685
His Val Cys Thr Asp Cys Gly Arg Arg Phe Thr Tyr Pro Ser Leu Leu					
	690		695		700
Val Ser His Arg Arg Met His Ser Gly Glu Arg Pro Phe Pro Cys Pro					
705		710		715	720
Glu Cys Gly Met Arg Phe Lys Arg Lys Phe Ala Val Glu Ala His Gln					
	725		730		735
Trp Ile His Arg Ser Cys Ser Gly Gly Arg Arg Gly Arg Arg Pro Gly					
	740		745		750
Ile Arg Ala Val Pro Arg Ala Pro Val Arg Gly Asp Arg Asp Pro Pro					
	755		760		765
Val Leu Phe Arg His Tyr Pro Asp Ile Phe Glu Glu Cys Gly					
770		775		780	

<210> 3967

<211> 892

<212> DNA

<213> Homo sapiens

<400> 3967

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<210> 3968

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3968

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Val	Ala	Arg	Gln	Ile	Leu	Pro	Arg	Gly	Arg	Gly	Arg	Leu	Val	Gly	Asp
			20					25					30		
Thr	Val	Val	Phe	Lys	Asp	Gly	Gln	Tyr	Trp	Ile	Arg	Gly	Arg	Thr	Ser
		35				40					45				
Val	Asp	Ile	Ile	Lys	Thr	Gly	Gly	Tyr	Lys	Val	Ser	Ala	Leu	Glu	Val
	50				55					60					
Glu	Trp	His	Leu	Leu	Ala	His	Pro	Ser	Ile	Thr	Asp	Val	Ala	Val	Ile
	65				70				75					80	
Gly	Val	Pro	Asp	Met	Thr	Trp	Gly	Gln	Arg	Val	Thr	Ala	Val	Val	Thr
			85				90						95		
Leu	Arg	Glu	Gly	His	Ser	Leu	Ser	His	Arg	Glu	Leu	Lys	Glu	Trp	Ala
		100					105					110			
Arg	Asn	Val	Leu	Ala	Pro	Tyr	Ala	Val	Pro	Ser	Glu	Leu	Val	Leu	Val
	115					120					125				
Glu	Glu	Ile	Pro	Arg	Asn	Gln	Met	Gly	Lys	Ile	Asp	Lys	Lys	Ala	Leu
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Ile	Arg	His	Phe	His	Pro	Ser									
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<210> 3969

<211> 915

<212> DNA

<213> Homo sapiens

<400> 3969

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<210> 3970

<211> 89

<212> PRT

<213> Homo sapiens

<400> 3970

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20           25           30
Leu Gly Arg Gly Pro Leu Thr Gln Val Thr Asp Arg Lys Cys Ser Arg
35           40           45
Thr Gln Val Glu Leu Val Ala Asp Pro Glu Thr Arg Thr Val Ala Val
50           55           60
Lys Gln Val Ser Val Pro Leu Gln Gly Pro Ala Arg Pro Gly Asp Gly
65           70           75           80
Ile Trp Gly Gly Ile Ala Ser Arg Gln

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85

<210> 3971
 <211> 433
 <212> DNA
 <213> Homo sapiens

<400> 3971
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 180
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<210> 3972
 <211> 120
 <212> PRT
 <213> Homo sapiens

<400> 3972
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 35 40 45
 Pro Phe Ser Leu Ser Gly Asp Leu Pro Pro Ser Phe Lys Ser Leu His
 50 55 60
 Lys Gly His His Pro Met Ser Glu Gly Phe Ser Asp Tyr Pro Phe Pro
 65 70 75 80
 Ser Arg Ala Leu Pro Ser Met Leu His Phe Phe Pro Arg Ala Leu Asn
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 Thr Thr Tyr Leu Ser Phe Ile Phe Ser Leu Ser Phe Phe Cys Leu Leu
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 Pro Leu Glu His His Gln Ser Arg
 115 120

<210> 3973
 <211> 984
 <212> DNA
 <213> Homo sapiens

<400> 3973

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 180
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 360
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 984

<210> 3974

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3974

Leu	Gly	Leu	Ile	His	Ala	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Met	Leu	Val
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Asp	Pro	Ser	Arg	Gln	Pro	Tyr	Arg	Val	Lys	Val	Ile	Asp	Phe	Gly	Ser
			20					25					30		
Ala	Ser	His	Val	Ser	Lys	Ala	Val	Cys	Ser	Thr	Tyr	Leu	Gln	Ser	Arg
			35				40					45			
Tyr	Tyr	Arg	Ala	Pro	Glu	Ile	Ile	Leu	Gly	Leu	Pro	Phe	Cys	Glu	Ala
	50					55				60					
Ile	Asp	Met	Trp	Ser	Leu	Gly	Cys	Val	Ile	Ala	Glu	Leu	Phe	Leu	Gly
65				70					75					80	
Trp	Pro	Leu	Tyr	Pro	Gly	Ala	Ser	Glu	Tyr	Asp	Gln	Ile	Arg	Tyr	Ile
			85					90					95		
Ser	Gln	Thr	Gln	Gly	Leu	Pro	Ala	Glu	Tyr	Leu	Leu	Ser	Ala	Gly	Thr

	100		105		110
Lys Thr Thr Arg Phe Phe Asn Arg Asp Thr Asp Ser Pro Tyr Pro Leu					
	115		120		125
Trp Arg Leu Lys Thr Pro Asp Asp His Glu Ala Glu Thr Gly Ile Lys					
	130		135		140
Ser Lys Glu Ala Arg Lys Tyr Ile Phe Asn Cys Leu Asp Asp Met Ala					
145		150		155	160
Gln Val Asn Met Thr Thr Asp Leu Glu Gly Ser Asp Met Leu Val Glu					
	165		170		175
Lys Ala Asp Arg Arg Glu Phe Ile Asp Leu Leu Lys Lys Met Leu Thr					
	180		185		190
Ile Asp Ala Asp Lys Arg Ile Thr Pro Ile Glu Thr Leu Asn His Pro					
	195		200		205
Phe Val Thr Met Thr His Leu Leu Asp Phe Pro His Ser Thr His Val					
	210		215		220
Lys Ser Cys Phe Gln Asn Met Glu Ile Cys Lys Arg Arg Val Asn Met					
225		230		235	240
Tyr Asp Thr Val Asn Gln Ser Lys Thr Pro Phe Ile Thr His Val Ala					
	245		250		255
Pro Ser Thr Ser Thr Asn Leu Thr Met Thr Phe Asn Asn Gln Leu Thr					
	260		265		270
Thr Val His Asn Gln Pro Ser Ala Ala Ser Met Ala Ala Ala Ala Gln					
	275		280		285
Arg Ser Met Pro Leu Gln Thr Gly Thr Ala Gln Ile Cys Ala Arg Pro					
	290		295		300
Asp Pro Phe Gln Gln Ala Leu Ile Val Cys Pro Pro Gly Leu Gln Ala					
305		310		315	320
Leu Gln Ala Ser Pro Phe Thr Arg					
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<210> 3975

<211> 593

<212> DNA

<213> Homo sapiens

<400> 3975

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120

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180

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240

tgcttctgag gcgtctcgga atcataggcc tcccgtagaa ggggagcagc aggcgaggtc
300

tgcgtgagcc ccacagatgc ccgctcgct gccagactta aaagtctgtg cccctccccg
360

accaccaggg taccagatc ccaggcggct cagccaggcc cagagcccca agagctgggc
420

tggtctctcc aactgggatc tgggtaggg gctgctcccc caagtcctctg ggggactgtc
480

tgggacatcc aggcctgtc ttcttgtctt aaccactcac aacagagaac acgatgttct
540

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593

<210> 3976

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3976

Met	Gly	Phe	Ser	Leu	Leu	Glu	Gly	Pro	Ala	Ser	Leu	Gln	Pro	Pro	His
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Arg	Glu	Ser	Leu	Pro	Leu	His	Ser	Leu	Pro	Arg	Asp	Gly	Ser	Trp	Gly
			20					25					30		
Leu	Lys	Gly	Ala	Trp	Ala	Ser	Ala	Ser	Leu	Gln	Ala	Ala	Ser	Asn	Ser
		35					40					45			
Gln	Ser	Gly	Phe	Gly	Cys	Pro	Gln	Cys	Ser	Pro	Glu	Ala	Ala	Ala	Pro
	50					55					60				
His	Pro	Thr	Ile	Leu	Leu	Leu	Arg	Arg	Leu	Gly	Ile	Ile	Gly	Leu	Pro
65				70						75				80	
Trp	Lys	Gly	Ser	Ser	Arg	Arg	Gly	Leu	Arg	Glu	Pro	His	Arg	Cys	Pro
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Leu	Ala	Cys	Gln	Thr											
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<210> 3977

<211> 2668

<212> DNA

<213> Homo sapiens

<400> 3977

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120
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180
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240
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300
cctgggtcca ttttcacctg gaacaagcgg agtggcctgc aggtatcgca ggacttcctt
360
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420
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480
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540
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660
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720

atcctggaaa cagtctacaa acacagctgt ggggggttgc ctctgttcg aagtgcactg
780
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1140
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2340

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 2668

<210> 3978

<211> 667

<212> PRT

<213> Homo sapiens

<400> 3978

Met	Ile	His	Glu	Leu	Leu	Leu	Ala	Leu	Ser	Gly	Tyr	Pro	Gly	Ser	Ile
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Phe	Thr	Trp	Asn	Lys	Arg	Ser	Gly	Leu	Gln	Val	Ser	Gln	Asp	Phe	Pro
			20					25					30		
Phe	Leu	His	Pro	Ser	Glu	Thr	Ser	Val	Leu	Asn	Arg	Leu	Cys	Arg	Leu
			35					40					45		
Gly	Thr	Asp	Tyr	Ile	Arg	Phe	Thr	Glu	Phe	Ile	Glu	Gln	Tyr	Thr	Gly
	50					55					60				
His	Val	Gln	Gln	Gln	Asp	His	His	Pro	Ser	Gln	Gln	Gly	Gln	Gly	Gly
65					70					75					80
Leu	His	Gly	Ile	Tyr	Leu	Arg	Ala	Phe	Cys	Thr	Gly	Leu	Asp	Ser	Val
				85					90					95	
Leu	Gln	Pro	Tyr	Arg	Gln	Ala	Leu	Leu	Asp	Leu	Glu	Gln	Glu	Phe	Leu
			100					105					110		
Gly	Asp	Pro	His	Leu	Ser	Ile	Ser	His	Val	Asn	Tyr	Phe	Leu	Asp	Gln
		115					120						125		
Phe	Gln	Leu	Leu	Phe	Pro	Ser	Val	Met	Val	Val	Val	Glu	Gln	Ile	Lys
		130					135					140			
Ser	Gln	Lys	Ile	His	Gly	Cys	Gln	Ile	Leu	Glu	Thr	Val	Tyr	Lys	His
145				150						155					160
Ser	Cys	Gly	Gly	Leu	Pro	Pro	Val	Arg	Ser	Ala	Leu	Glu	Lys	Ile	Leu
			165						170					175	
Ala	Val	Cys	His	Gly	Val	Met	Tyr	Lys	Gln	Leu	Ser	Ala	Trp	Met	Leu
			180					185						190	
His	Gly	Leu	Leu	Leu	Asp	Gln	His	Glu	Glu	Phe	Phe	Ile	Lys	Gln	Gly
		195					200						205		
Pro	Ser	Ser	Gly	Asn	Val	Ser	Ala	Gln	Pro	Glu	Glu	Asp	Glu	Glu	Asp
		210					215					220			
Leu	Gly	Ile	Gly	Gly	Leu	Thr	Gly	Lys	Gln	Leu	Arg	Glu	Leu	Gln	Asp
225					230					235					240
Leu	Arg	Leu	Ile	Glu	Glu	Glu	Asn	Met	Leu	Ala	Pro	Ser	Leu	Lys	Gln
			245						250					255	
Phe	Ser	Leu	Arg	Val	Glu	Ile	Leu	Pro	Ser	Tyr	Ile	Pro	Val	Arg	Val
			260					265					270		
Ala	Glu	Lys	Ile	Leu	Phe	Val	Gly	Glu	Ser	Val	Gln	Met	Phe	Glu	Asn

275 280 285
 Gln Asn Val Asn Leu Thr Arg Lys Gly Ser Ile Leu Lys Asn Gln Glu
 290 295 300
 Asp Thr Phe Ala Ala Glu Leu His Arg Leu Lys Gln Gln Pro Leu Phe
 305 310 315 320
 Ser Leu Val Asp Phe Glu Gln Val Val Asp Arg Ile Arg Ser Thr Val
 325 330 335
 Ala Glu His Leu Trp Lys Leu Met Val Glu Glu Ser Asp Leu Leu Gly
 340 345 350
 Gln Leu Lys Ile Ile Lys Asp Phe Tyr Leu Leu Gly Arg Gly Glu Leu
 355 360 365
 Phe Gln Ala Phe Ile Asp Thr Ala Gln His Met Leu Lys Thr Pro Pro
 370 375 380
 Thr Ala Val Thr Glu His Asp Val Asn Val Ala Phe Gln Gln Ser Ala
 385 390 395 400
 His Lys Val Leu Leu Asp Asp Asp Asn Leu Leu Pro Leu Leu His Leu
 405 410 415
 Thr Ile Glu Tyr His Xaa Glu Arg Ser Thr Lys Met Leu Leu Arg Xaa
 420 425 430
 Arg Glu Gly Pro Ser Arg Glu Thr Ser Pro Arg Glu Ala Pro Ala Ser
 435 440 445
 Gly Trp Ala Ala Leu Gly Leu Ser Tyr Lys Val Gln Trp Pro Leu His
 450 455 460
 Ile Leu Phe Thr Pro Ala Val Leu Glu Lys Tyr Asn Val Val Phe Lys
 465 470 475 480
 Tyr Leu Leu Ser Val Arg Arg Val Gln Ala Glu Leu Gln His Cys Trp
 485 490 495
 Ala Leu Gln Met Gln Arg Lys His Leu Lys Ser Asn Gln Thr Asp Ala
 500 505 510
 Ile Lys Trp Arg Leu Arg Asn His Met Ala Phe Leu Val Asp Asn Leu
 515 520 525
 Gln Tyr Tyr Leu Gln Val Asp Val Leu Glu Ser Gln Phe Ser Gln Leu
 530 535 540
 Leu His Gln Ile Asn Ser Thr Arg Asp Phe Glu Ser Ile Arg Leu Ala
 545 550 555 560
 His Asp His Phe Leu Ser Asn Leu Leu Ala Gln Ser Phe Ile Leu Leu
 565 570 575
 Lys Pro Val Phe His Cys Leu Asn Glu Ile Leu Asp Leu Cys His Ser
 580 585 590
 Phe Cys Ser Leu Val Ser Gln Asn Leu Gly Pro Leu Asp Glu Arg Gly
 595 600 605
 Ala Ala Gln Leu Ser Ile Leu Val Lys Gly Phe Ser Arg Gln Ser Ser
 610 615 620
 Leu Leu Phe Lys Ile Leu Ser Ser Val Arg Asn His Gln Ile Asn Ser
 625 630 635 640
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<210> 3979

<211> 2746

<212> DNA

<213> Homo sapiens

<400> 3979

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<210> 3980

<211> 478

<212> PRT

<213> Homo sapiens

<400> 3980

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Met	Arg	Cys	Leu	Arg	Lys	Arg	Ser	Thr	Val	Ser	Phe	Leu	Gly	Val	Leu
			20					25				30			
Val	Ile	Phe	Leu	Leu	Phe	Met	Asn	Leu	Tyr	Ile	Glu	Asp	Ser	Tyr	Val
		35					40				45				
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3141

<210> 3981
<211> 4447
<212> DNA
<213> Homo sapiens

<400> 3981
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 Tyr Leu Lys Arg Gly Thr Glu Gln Glu Ala Ala Lys Asn Lys Lys Ser
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 His Gly Leu Ala His Asp Glu Met Lys Ser Pro Arg Glu Pro Gly Tyr
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 Lys Ala Glu Gly Lys Tyr Lys Asp Asp Pro Val Asp Leu Arg Leu Asp
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 Ile Glu Arg Arg Lys Lys His Lys Glu Arg Asp Leu Lys Arg Gly Lys
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 Ser Ala Glu Lys Thr Glu Lys Thr His Lys Gly Ser Lys Lys Gln Lys
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<213> Homo sapiens
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3164

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Pro Ala Pro Pro Tyr Leu Asp His Tyr Pro Pro Tyr Leu Gln Glu Arg
65          70          75          80
Val Val Asn Ser Gln Tyr Gly Thr Gln Pro Gln Gln Tyr Pro Pro Ile
          85          90          95
Tyr Pro Ser His Tyr Asp Gly Arg Arg Val Tyr Pro Ala Pro Ser Tyr
          100          105          110
Thr Arg Glu Glu Ile Phe Arg Glu Ser Pro Ile Pro Ile Glu Ile
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394

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          20          25          30
Thr Glu Gly Ala Asn Ile Asn Lys Pro Asp Cys Glu Gly Glu Thr Pro
          35          40          45
Ile His Lys Ala Ala Arg Ser Gly Ser Leu Glu Cys Ile Ser Ala Leu
          50          55          60
Val Ala Asn Gly Ala His Val Glu
65          70

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<400> 3996

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 35 40 45
 Gly Ser Asn Pro Thr Pro Pro Ala Ser Val Met Gly Ser Pro Pro Ser
 50 55 60
 Ser Leu Gln Glu Ala Gln Arg Gly Arg Ala Ala Ser His Ser Arg Ala
 65 70 75 80
 Leu Thr Leu Pro Ser Ala Leu His Phe Ala Ser Ser Leu Leu Leu Thr
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 Arg Ala Gly Ala Asn Val His Glu Ala Cys Thr Phe Asp Asp Thr Ser
 100 105 110
 Glu Gly Ala Val His Tyr Phe Tyr Asp Glu Ser Gly Val Arg Arg Ser
 115 120 125
 Tyr Thr Phe Gly Leu Ala Gly Gly Gly Tyr Glu Asn Pro Val Gly Gln
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 Gln Gly Glu Gln Thr Ala Asn Gly Ala Trp Asp Arg His Ser His Ser
 145 150 155 160
 Ser Ser Phe His Ser Ala Asp Val Pro Glu Ala Thr Gly Gly Leu Asn
 165 170 175
 Leu Leu Gln Pro Arg Pro Val Val Leu Gln Gly Met Gln Val Arg Arg

	180		185		190										
Val	Pro	Leu	Glu	Ile	Pro	Glu	Phe	Asp	Leu	Leu	Asp	Gln	Asp	Ser	Leu
	195		200		205										
His	Glu	Ser	Gln	Glu	Gln	Thr	Leu	Met	Glu	Glu	Ala	Pro	Pro	Arg	Ala
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<212> DNA

<213> Homo sapiens

<400> 3997

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1200

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      35           40           45
His Asp Arg Phe Glu Glu Ser Ala Lys Ala Tyr His Glu Leu Leu Glu
      50           55           60
Ala Ser Leu Leu Arg Glu Ala Val Ser Ser Gly Asp Glu Lys Glu Gly
      65           70           75           80
Leu Lys His Pro Gly Leu Ile Leu Lys Tyr Ser Thr Tyr Lys Asn Leu
      85           90           95
Ala Gln Leu Ala Ala Gln Arg Glu Asp Leu Glu Thr Ala Met Glu Phe
      100           105           110
Tyr Leu Glu Ala Val Met Leu Asp Ser Thr Asp Val Asn Leu Trp Tyr
      115           120           125
Lys Ile Gly His Val Ala Leu Arg Leu Ile Arg Ile Pro Leu Ala Arg
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Leu Asp Asn Leu Ile Thr Val Leu Tyr Thr Leu Ser Asp Tyr Thr Thr
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Cys Leu Tyr Phe Ile Cys Lys Ala Leu Glu Lys Asp Cys Arg Tyr Ser
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Lys Gly Leu Val Leu Lys Glu Lys Ile Phe Glu Glu Gln Pro Cys Leu
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Arg Lys Asp Ser Leu Arg Met Phe Leu Lys Cys Asp Met Ser Ile His
      210           215           220
Asp Val Ser Val Ser Ala Ala Glu Thr Gln Ala Ile Val Asp Glu Ala
      225           230           235           240
Leu Gly Leu Arg Lys Lys Arg Gln Ala Leu Ile Val Arg Glu Lys Glu
      245           250           255
Pro Asp Leu Lys Leu Val Gln Pro Ile Pro Phe Phe Thr Trp Lys Cys
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Glu Pro Val Val Ser Tyr Thr Ser Val Ala Thr Thr Ser Phe Pro Leu
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His Ser Pro Gly Leu Leu Glu Thr Gly Ala Pro Val Gly Asp Ile Ser
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Gly Gly Asp Lys Ser Lys Lys Gly Val Lys Arg Lys Lys Ile Ser Glu
      370           375           380
Glu Ser Gly Glu Thr Ala Lys Arg Arg Ser Ala Arg Val Arg Asn Thr
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Lys Cys Lys Lys Glu Glu Lys Val Asp Phe Gln Glu Leu Leu Met Lys
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 465 470 475 480
 Asn Gly Gly Ile Leu Glu Leu Met Met Arg Tyr Leu Lys Ala Met Gly
 485 490 495
 His Lys Phe Leu Val Arg Trp Pro Pro Gly Leu Ala Glu Val Val Leu
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 Ser Val Tyr His Ser Trp Arg Arg His Ser Thr Ser Leu Pro Asn Pro
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 Leu Leu Arg Asp Cys Ser Asn Lys His Ile Lys Asp Met Met Leu Met
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 Ser Leu Ser Cys Met Glu Leu Gln Leu Asp Gln Trp Leu Leu Thr Lys
 545 550 555 560
 Gly Arg Ser Ser Ala Val Ser Pro Arg Asn Cys Pro Ala Gly Met Val
 565 570 575
 Asn Gly Arg Phe Gly Pro Asp Phe Pro Gly Thr His Cys Leu Gly Asp
 580 585 590
 Leu Leu Gln Leu Ser Phe Ala Ser Ser Gln Arg Asp Leu Phe Glu Asp
 595 600 605
 Gly Trp Leu Glu Phe Val Val Arg Val Tyr Trp Leu Lys Ala Arg Phe
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 Leu Ala Leu Gln Gly Asp Met Glu Gln Ala Leu Glu Asn Tyr Asp Ile
 625 630 635 640
 Cys Thr Glu Met Leu Gln Ser Ser Thr Ala Ile Gln Val Glu Ala Gly
 645 650 655
 Ala Glu Arg Arg Asp Ile Val Ile Arg Leu Pro Asn Leu His Asn Asp
 660 665 670
 Ser Val Val Ser Leu Glu Glu Ile Asp Lys Asn Leu Lys Ser Leu Glu
 675 680 685
 Arg Cys Gln Ser Leu Glu Glu Ile Gln Arg Leu Tyr Glu Ala Gly Asp
 690 695 700
 Tyr Lys Ala Val Val His Leu Leu Arg Pro Thr Leu Cys Thr Ser Gly
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 Phe Asp Arg Ala Lys His Leu Glu Phe Met Thr Ser Ile Pro Glu Arg
 725 730 735
 Pro Ala Gln Leu Leu Leu Gln Asp Ser Leu Leu Arg Leu Lys Asp
 740 745 750
 Tyr Arg Gln Cys Phe Glu Cys Ser Asp Val Ala Leu Asn Glu Ala Val
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 770 775 780
 Ala Thr Val Thr Gln Leu Leu Met Gly Ile Glu Gln Ala Leu Ser Ala
 785 790 795 800
 Asp Ser Ser Gly Ser Ile Leu Lys Val Ser Ser Thr Thr Gly Leu
 805 810 815
 Val Arg Leu Thr Asn Asn Leu Ile Gln Val Ile Asp Cys Ser Met Ala
 820 825 830
 Val Gln Glu Glu Ala Lys Glu Pro His Val Ser Ser Val Leu Pro Trp
 835 840 845
 Ile Ile Leu His Arg Ile Ile Trp Gln Glu Glu Asp Thr Phe His Ser

850 855 860
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 865 870 875 880
 Glu Thr Pro Met Leu Pro Ser Ser Leu Met Leu Leu Asn Thr Ala His
 885 890 895
 Glu Tyr Leu Gly Arg Arg Ser Trp Cys Cys Asn Ser Asp Gly Ala Leu
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 915 920 925
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 930 935 940
 Gln Cys Phe Tyr Cys Leu Tyr Ser Phe Pro Ser Lys Lys Ser Lys Ala
 945 950 955 960
 Arg Tyr Leu Glu Glu His Ser Ala Gln Gln Val Asp Leu Ile Trp Glu
 965 970 975
 Asp Ala Leu Phe Met Phe Glu Tyr Phe Lys Pro Lys Thr Leu Pro Glu
 980 985 990
 Phe Asp Ser Tyr Lys Thr Ser Thr Val Ser Ala Asp Leu Ala Asn Leu
 995 1000 1005
 Leu Lys Arg Ile Ala Thr Ile Val Pro Arg Thr Glu Arg Pro Ala Leu
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 Pro Cys Leu Pro Glu Gly Ala Asp Pro Ser Pro Pro Val Val Asn Glu
 1045 1050 1055
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 1060 1065 1070
 Lys Ala Ile Lys Phe Tyr Met His Asp Ile Cys Ile Cys Pro Asn Arg
 1075 1080 1085
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 His Ala Thr Pro Val Leu Asn Cys Phe Arg Arg Ala Leu Glu Ile Asp
 1125 1130 1135
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 Glu Thr Ala Lys His Cys Phe Thr Ser Ala Ala Arg Cys Glu Gly Asp
 1185 1190 1195 1200
 Gly Asp Glu Glu Glu Trp Leu Ile His Tyr Met Leu Gly Lys Val Ala
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 Glu Lys Gln Gln Gln Pro Pro Thr Val Tyr Leu Leu His Tyr Arg Gln
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 Ala Gly His Tyr Leu His Glu Glu Ala Ala Arg Tyr Pro Lys Lys Ile
 1235 1240 1245
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 1250 1255 1260
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 1265 1270 1275 1280
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Thr Leu Pro Gly Pro Gly Ala Ser Leu Pro Ser Ser Ser Gly Pro Gly			
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Leu Thr Ser Pro Pro Tyr Thr Ala Thr Pro Ile Asp His Asp Tyr Val			
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Lys Cys Lys Lys Pro His Gln Gln Ala Thr Pro Asp Asp Arg Ser Gln			
	1365	1370	1375
Asp Ser Thr Ala Val Ala Leu Ser Asp Ser Ser Ser Thr Gln Asp Phe			
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Phe Asn Glu Pro Thr Ser Leu Leu Glu Gly Ser Arg Lys Ser Tyr Thr			
	1395	1400	1405
Glu Lys Arg Leu Pro Ile Leu Ser Ser Gln Ala Gly Ala Thr Gly Lys			
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Asp Leu Gln Gly Ala Thr Glu Glu Arg Gly Lys Asn Glu Glu Ser Leu			
1425	1430	1435	1440
Glu Ser Thr Glu Gly Phe Arg Ala Ala Glu Gln Gly Val Gln Lys Pro			
	1445	1450	1455
Ala Ala Glu Thr Pro Ala Ser Ala Cys Ile Pro Gly Lys Pro Ser Ala			
	1460	1465	1470
Ser Thr Pro Thr Leu Trp Asp Gly Lys Lys Arg Gly Asp Leu Pro Gly			
	1475	1480	1485
Glu Pro Val Ala Phe Pro Gln Gly Leu Pro Ala Gly Ala Glu Glu Gln			
	1490	1495	1500
Arg Gln Phe Leu Thr Glu Gln Cys Ile Ala Ser Phe Arg Leu Cys Leu			
1505	1510	1515	1520
Ser Arg Phe Pro Gln His Tyr Lys Ser Leu Tyr Arg Leu Ala Phe Leu			
	1525	1530	1535
Tyr Thr Tyr Ser Lys Thr His Arg Asn Leu Gln Trp Ala Arg Asp Val			
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Leu Leu Gly Ser Ser Ile Pro Trp Gln Gln Leu Gln His Met Pro Ala			
	1555	1560	1565
Gln Gly Leu Phe Cys Glu Arg Asn Lys Thr Asn Phe Phe Asn Gly Ile			
	1570	1575	1580
Trp Arg Ile Pro Val Asp Glu Ile Asp Arg Pro Gly Ser Phe Ala Trp			
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His Met Asn Arg Ser Ile Val Leu Leu Leu Lys Val Leu Ala Gln Leu			
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Pro Asp Gln Gly Lys Lys Tyr Leu Arg Asp Ala Asp Arg Gln Val Leu			
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	1685	1690	1695
Glu Asp Gly Gln Gly Leu Pro Gln Pro Lys Lys Pro Pro Leu Ala			
	1700	1705	1710
Asp Gly Ser Gly Pro Gly Pro Glu Pro Gly Gly Lys Val Gly Leu Leu			

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 1730 1735 1740
 Gly Glu Arg Lys Asp Lys Glu Ser Pro Arg Ala Gly Pro Thr Glu Pro
 1745 1750 1755 1760
 Met Asp Thr Ser Glu Ala Thr Val Cys His Ser Asp Leu Glu Arg Thr
 1765 1770 1775
 Pro Pro Leu Leu Pro Gly Arg Pro Ala Arg Asp Arg Gly Pro Glu Ser
 1780 1785 1790
 Arg Pro Thr Glu Leu Ser Leu Glu Glu Leu Ser Ile Ser Ala Arg Gln
 1795 1800 1805
 Gln Pro Thr Pro Leu Thr Pro Ala Gln Pro Ala Pro Ala Pro Ala Pro
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 Ala Thr Thr Thr Gly Thr Arg Ala Gly Gly His Pro Glu Glu Pro Leu
 1825 1830 1835 1840
 Ser Arg Leu Ser Arg Lys Arg Lys Leu Leu Glu Asp Thr Glu Ser Gly
 1845 1850 1855
 Lys Thr Leu Leu Asp Ala Tyr Arg Val Trp Gln Gln Gly Gln Lys
 1860 1865 1870
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 1875 1880 1885
 Tyr Met Leu Ile Lys Gln Val Asp Glu Glu Ala Ala Leu Glu Gln Ala
 1890 1895 1900
 Val Lys Phe Cys Gln Val His Leu Gly Ala Ala Ala Gln Arg Gln Ala
 1905 1910 1915 1920
 Ser Gly Asp Thr Pro Thr Thr Pro Lys His Pro Lys Asp Ser Arg Glu
 1925 1930 1935
 Asn Phe Phe Pro Val Thr Val Val Pro Thr Ala Pro Asp Pro Val Pro
 1940 1945 1950
 Ala Asp Ser Val Gln Arg Pro Ser Asp Ala His Thr Lys Pro Arg Pro
 1955 1960 1965
 Ala Leu Ala Ala Ala Thr Thr Ile Ile Thr Cys Pro Pro Ser Ala Ser
 1970 1975 1980
 Ala Ser Thr Leu Asp Gln Ser Lys Asp Pro Gly Pro Pro Arg Pro His
 1985 1990 1995 2000
 Arg Pro Glu Ala Thr Pro Ser Met Ala Ser Leu Gly Pro Glu Gly Glu
 2005 2010 2015
 Glu Leu Ala Arg Val Ala Glu Gly Thr Ser Phe Pro Pro Gln Glu Pro
 2020 2025 2030
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 2035 2040 2045
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 2050 2055 2060
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 2065 2070 2075 2080
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 2085 2090 2095
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 2100 2105 2110
 Glu Gly His Pro Gly Lys Pro Glu Pro Ser Arg Ala Lys Ser Arg Pro
 2115 2120 2125
 Leu Pro Asn Met Pro Lys Leu Val Ile Pro Ser Ala Ala Thr Lys Phe
 2130 2135 2140
 Pro Pro Glu Ile Thr Val Thr Pro Pro Thr Pro Thr Leu Leu Ser Pro

2145	2150	2155	2160
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	2165	2170	2175
Leu Ser Ala Gln Ser Ala Ala Asn Val Arg Lys Glu Ser Leu Cys Gln			
	2180	2185	2190
Pro Ala Leu Glu Val Leu Glu Thr Ser Ser Gln Glu Ser Ser Leu Glu			
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<210> 3999

<211> 2546

<212> DNA

<213> Homo sapiens

<400> 3999

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360
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420
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1140

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 1680
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 1740
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 1860
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<210> 4000

<211> 606

<212> PRT

<213> Homo sapiens

<400> 4000

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Glu Glu Leu Cys Thr Pro Pro Asp Pro Gly Ala Ala Phe Val Val Val
 35           40           45
Glu Cys Pro Asp Glu Ser Phe Ile Gln Pro Ile Cys Glu Asn Ala Thr
 50           55           60
Phe Gln Arg Tyr Gln Gly Lys Ala Asp Ala Pro Val Ala Leu Val Val
 65           70           75           80
His Met Ala Pro Ala Ser Val Leu Val Asp Ser Arg Tyr Gln Gln Trp
 85           90           95
Met Glu Arg Phe Gly Pro Asp Thr Gln His Leu Val Leu Asn Glu Asn
 100          105          110
Cys Ala Ser Val His Asn Leu Arg Ser His Lys Ile Gln Thr Gln Leu
 115          120          125
Asn Leu Ile His Pro Asp Ile Phe Pro Leu Leu Thr Ser Phe Arg Cys
 130          135          140
Lys Lys Glu Gly Pro Thr Leu Ser Val Pro Met Val Gln Gly Glu Cys
 145          150          155          160
Leu Leu Lys Tyr Gln Leu Arg Pro Arg Arg Glu Trp Gln Arg Asp Ala
 165          170          175
Ile Ile Thr Cys Asn Pro Glu Glu Phe Ile Val Glu Ala Leu Gln Leu
 180          185          190
Pro Asn Phe Gln Gln Ser Val Gln Glu Tyr Arg Arg Ser Ala Gln Asp
 195          200          205
Gly Pro Ala Pro Ala Glu Lys Arg Ser Gln Tyr Pro Glu Ile Ile Phe
 210          215          220
Leu Gly Thr Gly Ser Ala Ile Pro Met Lys Ile Arg Asn Val Ser Ala
 225          230          235          240
Thr Leu Val Asn Ile Ser Pro Asp Thr Ser Leu Leu Leu Asp Cys Gly
 245          250          255
Glu Gly Thr Phe Gly Gln Leu Cys Arg His Tyr Gly Asp Gln Val Asp
 260          265          270
Arg Val Leu Gly Thr Leu Ala Ala Val Phe Val Ser His Leu His Ala
 275          280          285
Asp His His Thr Gly Leu Pro Ser Ile Leu Leu Gln Arg Glu Arg Ala
 290          295          300
Leu Ala Ser Leu Gly Lys Pro Leu His Pro Leu Leu Val Val Ala Pro
 305          310          315          320
Asn Gln Leu Lys Ala Trp Leu Gln Gln Tyr His Asn Gln Cys Gln Glu
 325          330          335
Val Leu His His Ile Ser Met Ile Pro Ala Lys Cys Leu Gln Glu Gly
 340          345          350
Ala Glu Ile Ser Ser Pro Ala Val Glu Arg Leu Ile Ser Ser Leu Leu
 355          360          365
Arg Thr Cys Asp Leu Glu Glu Phe Gln Thr Cys Leu Val Arg His Cys
 370          375          380
Lys His Ala Phe Gly Cys Ala Leu Val His Thr Ser Gly Trp Lys Val
 385          390          395          400
Val Tyr Ser Gly Asp Thr Met Pro Cys Glu Ala Leu Val Arg Met Gly
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Lys Asp Ala Thr Leu Leu Ile His Glu Ala Thr Leu Glu Asp Gly Leu

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<210> 4001
<211> 1251
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
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360
gactacaagg tgtacagcct ggagatgatg gcgcgccaga cctccagcac ggagatgctg
420
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480
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540
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600
atccacagca aggatggttc gctgcagcag ctcaaggaga accagttagt gatcctggcc
660
accaccacca ctgacctagg tgtgaccacc agcgtgccgg aggtgcccac gatggagaag
720

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 1020
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 1080
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<210> 4002

<211> 417

<212> PRT

<213> Homo sapiens

<400> 4002

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Leu	Ser	Asp	Ser	Leu	Gly	Val	Ser	Val	Met	Ala	Thr	Asp	Gln	Asp	Ser
		35					40					45			
Tyr	Ser	Thr	Ser	Ser	Thr	Glu	Glu	Glu	Leu	Glu	Gln	Phe	Ser	Ser	Pro
	50					55					60				
Ser	Val	Lys	Lys	Lys	Pro	Ser	Met	Ile	Leu	Gly	Lys	Ala	Arg	His	Arg
65					70					75				80	
Leu	Ser	Phe	Ala	Ser	Phe	Ser	Ser	Met	Phe	His	Ala	Phe	Leu	Ser	Asn
				85					90					95	
Asn	Arg	Lys	Leu	Tyr	Lys	Lys	Val	Val	Glu	Leu	Ala	Gln	Asp	Lys	Gly
		100						105					110		
Ser	Tyr	Phe	Gly	Ser	Leu	Val	Gln	Asp	Tyr	Lys	Val	Tyr	Ser	Leu	Glu
	115						120					125			
Met	Met	Ala	Arg	Gln	Thr	Ser	Ser	Thr	Glu	Met	Leu	Gln	Glu	Ile	Arg
	130					135					140				
Thr	Met	Met	Thr	Gln	Leu	Lys	Ser	Tyr	Leu	Leu	Gln	Ser	Thr	Glu	Leu
145				150						155				160	
Lys	Ala	Leu	Val	Asp	Pro	Ala	Leu	His	Ser	Glu	Glu	Glu	Leu	Glu	Ala
			165						170					175	
Ile	Val	Glu	Ser	Ala	Leu	Tyr	Lys	Cys	Val	Leu	Lys	Pro	Leu	Lys	Glu
		180						185					190		
Ala	Ile	Asn	Ser	Cys	Leu	His	Gln	Ile	His	Ser	Lys	Asp	Gly	Ser	Leu
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Gln	Gln	Leu	Lys	Glu	Asn	Gln	Leu	Val	Ile	Leu	Ala	Thr	Thr	Thr	Thr
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<210> 4003
<211> 581
<212> DNA
<213> Homo sapiens
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420
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<210> 4004

<211> 160
 <212> PRT
 <213> Homo sapiens

<400> 4004
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 35 40 45
 Ala Lys Ser Pro Pro Val Ser Phe Phe Ser Leu Arg Ser Pro Val Leu Asp
 50 55 60
 Leu Phe Gln Gly Gln Leu Asp Tyr Ala Glu Tyr Val Arg Arg Asp Ser
 65 70 75 80
 Glu Val Val Leu Leu Phe Phe Tyr Ala Pro Trp Cys Gly Gln Ser Ile
 85 90 95
 Ala Ala Arg Ala Glu Ile Glu Gln Ala Ala Ser Arg Leu Ser Asp Gln
 100 105 110
 Val Leu Phe Val Ala Ile Asn Cys Trp Trp Asn Gln Gly Lys Cys Arg
 115 120 125
 Lys Gln Lys His Phe Phe Tyr Phe Pro Val Ile Tyr Leu Tyr His Arg
 130 135 140
 Ser Phe Gly Pro Ile Glu Tyr Lys Gly Pro His Glu Cys Cys Leu His
 145 150 155 160

<210> 4005
 <211> 666
 <212> DNA
 <213> Homo sapiens

<400> 4005
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<210> 4006
<211> 222
<212> PRT
<213> Homo sapiens

<400> 4006
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35 40 45
Pro Lys Met Thr Arg Ser Lys Leu Lys Glu Val Val Glu Lys Gly Met
50 55 60
Val Ile Pro Thr Trp Asn Ile Ser Pro Ile Lys Lys Ala Asn Glu Ile
65 70 75 80
Lys Pro Pro Gln Phe Val Asp Ile His Leu Glu Glu Asp Asp Ser Ser
85 90 95
Asp Glu Glu Tyr Gln Pro Asp Asp Glu Glu Glu Asp Glu Thr Ala Glu
100 105 110
Glu Ser Leu Leu Glu Ser Asp Val Glu Ser Thr Ala Ser Ser Pro Arg
115 120 125
Gly Ala Lys Lys Ser Arg Leu Arg Gln Ser Ser Glu Met Thr Glu Thr
130 135 140
Asp Glu Glu Ser Gly Ile Leu Ser Glu Ala Glu Lys Val Thr Thr Pro
145 150 155 160
Ala Ile Arg His Ile Ser Ala Glu Val Val Pro Met Gly Pro Pro Pro
165 170 175
Pro Pro Lys Pro Lys Gln Thr Arg Asp Ser Thr Phe Met Glu Lys Leu
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His Ala Val Asp Glu Glu Leu Ala Ser Ser Pro Val Cys Met Asp Ser
195 200 205
Phe Gln Pro Met Asp Asp Ser Leu Ile Ala Phe Arg Thr Arg
210 215 220

<210> 4007
<211> 2313
<212> DNA
<213> Homo sapiens

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240
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300

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420
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480
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540
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720
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1320
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1680
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1920

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 1980
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 2040
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 2100
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<210> 4008

<211> 290

<212> PRT

<213> Homo sapiens

<400> 4008

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		20						25					30		
Ser	Glu	Ala	Ser	Lys	Glu	Asn	Arg	Asp	Ile	Glu	Ile	Ser	Thr	Glu	Glu
		35					40					45			
Glu	Lys	Asp	Thr	Gly	Asp	Leu	Lys	Asp	Ser	Ser	Leu	Leu	Lys	Thr	Lys
		50				55					60				
Arg	Lys	His	Lys	Lys	Lys	His	Lys	Glu	Arg	His	Lys	Met	Gly	Glu	Glu
65					70					75				80	
Val	Ile	Pro	Leu	Arg	Val	Leu	Ser	Lys	Ser	Glu	Trp	Met	Asp	Leu	Lys
			85					90						95	
Lys	Glu	Tyr	Leu	Ala	Leu	Gln	Lys	Ala	Ser	Met	Ala	Ser	Leu	Lys	Lys
		100						105					110		
Thr	Ile	Ser	Gln	Ile	Lys	Ser	Glu	Ser	Glu	Met	Glu	Thr	Asp	Ser	Gly
		115					120					125			
Val	Pro	Gln	Asn	Thr	Gly	Met	Lys	Asn	Glu	Lys	Thr	Ala	Asn	Arg	Glu
		130				135					140				
Glu	Cys	Arg	Thr	Gln	Glu	Lys	Val	Asn	Ala	Thr	Gly	Pro	Gln	Phe	Val
145					150					155				160	
Ser	Gly	Val	Ile	Val	Lys	Ile	Ile	Ser	Thr	Glu	Pro	Leu	Pro	Gly	Arg
			165					170						175	
Lys	Gln	Val	Arg	Asp	Thr	Leu	Ala	Ala	Ile	Ser	Glu	Val	Leu	Tyr	Val
		180					185						190		
Asp	Leu	Leu	Glu	Gly	Asp	Thr	Glu	Cys	His	Ala	Arg	Phe	Lys	Thr	Pro
		195					200					205			
Glu	Asp	Ala	Gln	Ala	Val	Ile	Asn	Ala	Tyr	Thr	Glu	Ile	Asn	Lys	Lys
		210				215					220				
His	Cys	Trp	Lys	Leu	Glu	Ile	Leu	Ser	Gly	Asp	His	Glu	Gln	Arg	Tyr
225				230						235				240	
Trp	Gln	Lys	Ile	Leu	Val	Asp	Arg	Gln	Ala	Lys	Leu	Asn	Gln	Pro	Arg
			245					250						255	
Glu	Lys	Lys	Arg	Gly	Thr	Glu	Lys	Leu	Ile	Thr	Lys	Ala	Glu	Lys	Ile

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 Arg Leu Ala Lys Thr Gln Gln Ala Ser Lys His Ile Arg Phe Ser Glu
 275 280 285
 Tyr Asp
 290

<210> 4009
 <211> 675
 <212> DNA
 <213> Homo sapiens

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 120
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 240
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 480
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 540
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<210> 4010
 <211> 225
 <212> PRT
 <213> Homo sapiens

<400> 4010
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 Met Gln Ala Ser Val Pro Gly Pro Ser Glu Glu Pro Val Val Tyr Asn
 35 40 45
 Pro Thr Thr Ala Ala Phe Ile Cys Asp Ser Leu Val Asn Glu Lys Thr
 50 55 60
 Ile Gly Ser Pro Pro Asn Glu Phe Tyr Cys Ser Glu Asn Thr Ser Val
 65 70 75 80
 Pro Asn Glu Ser Asn Lys Ile Leu Val Asn Lys Asp Val Pro Gln Lys

85 90 95
 Pro Gly Gly Glu Thr Thr Pro Ser Val Thr Asp Leu Leu Asn Tyr Phe
 100 105 110
 Leu Ala Pro Glu Ile Leu Thr Gly Asp Asn Gln Tyr Tyr Cys Glu Asn
 115 120 125
 Cys Ala Ser Leu Gln Asn Ala Glu Lys Thr Met Gln Ile Thr Glu Glu
 130 135 140
 Pro Glu Tyr Leu Ile Leu Thr Leu Leu Arg Phe Ser Tyr Asp Gln Lys
 145 150 155 160
 Tyr His Val Arg Arg Lys Ile Leu Asp Asn Val Ser Leu Pro Leu Val
 165 170 175
 Leu Glu Leu Pro Val Lys Arg Ile Thr Ser Phe Ser Ser Leu Ser Glu
 180 185 190
 Ser Trp Ser Val Asp Val Asp Phe Thr Asp Leu Ser Glu Asn Leu Ala
 195 200 205
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 Val
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<210> 4011

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4011

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 480
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 660
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 780
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<210> 4012

<211> 419

<212> PRT

<213> Homo sapiens

<400> 4012

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		20						25					30		
Ser	Arg	Ser	Arg	Ala	Arg	Ala	Gly	Glu	Leu	Trp	Leu	Pro	His	Gly	Thr
	35						40					45			
Val	Ala	Thr	Pro	Val	Phe	Met	Pro	Val	Gly	Thr	Gln	Ala	Thr	Met	Lys
	50				55						60				
Gly	Ile	Thr	Thr	Glu	Gln	Leu	Asp	Ala	Leu	Gly	Cys	Arg	Ile	Cys	Leu
65					70					75				80	
Gly	Asn	Thr	Tyr	His	Leu	Gly	Leu	Arg	Pro	Gly	Pro	Glu	Leu	Ile	Gln
				85					90					95	
Lys	Ala	Asn	Gly	Leu	His	Gly	Phe	Met	Asn	Trp	Pro	His	Asn	Leu	Leu
		100						105					110		
Thr	Leu	Cys	Gly	Gly	Val	Ser	Leu	Asp	Ser	Gly	Gly	Phe	Gln	Met	Val
	115						120					125			
Ser	Leu	Val	Ser	Leu	Ser	Glu	Val	Thr	Glu	Glu	Gly	Val	Arg	Phe	Arg
	130					135					140				
Ser	Pro	Tyr	Asp	Gly	Asn	Glu	Thr	Leu	Leu	Ser	Pro	Glu	Lys	Ser	Val
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Gln	Ile	Gln	Asn	Ala	Leu	Gly	Ser	Asp	Ile	Ile	Met	Gln	Leu	Asp	Asp
				165					170					175	
Val	Val	Ser	Ser	Thr	Val	Thr	Gly	Pro	Arg	Val	Glu	Glu	Ala	Met	Tyr
		180					185						190		
Arg	Ser	Ile	Arg	Trp	Leu	Asp	Arg	Cys	Ile	Ala	Ala	His	Gln	Arg	Pro
	195						200					205			
Asp	Lys	Gln	Asn	Leu	Phe	Ala	Ile	Ile	Gln	Gly	Gly	Leu	Asp	Ala	Asp
	210				215						220				
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<210> 4013
<211> 1419
<212> DNA
<213> Homo sapiens
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<400> 4013
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540
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660

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 1200
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<210> 4014

<211> 473

<212> PRT

<213> Homo sapiens

<400> 4014

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			20					25					30		
Thr	Pro	Ala	Leu	Gln	Pro	Leu	Ser	Arg	Ala	Ser	Pro	Ile	Pro	Gly	Thr
		35					40					45			
Pro	Asp	Arg	Leu	Pro	Cys	Gln	Gln	Leu	Leu	Gln	Gln	Ala	Gln	Ala	Ala
	50					55					60				
Ile	Pro	Arg	Ser	Thr	Ser	Phe	Asp	Arg	Lys	Leu	Pro	Asp	Gly	Thr	Arg
65					70					75				80	
Ser	Ser	Pro	Ser	Asn	Gln	Ser	Ser	Ser	Ser	Asp	Pro	Gly	Pro	Gly	Gly
			85						90					95	
Ser	Gly	Pro	Trp	Arg	Pro	Gln	Val	Gly	Tyr	Asp	Gly	Cys	Gln	Ser	Pro
		100						105					110		
Leu	Leu	Leu	Glu	His	Gln	Gly	Ser	Gly	Pro	Leu	Glu	Cys	Asp	Gly	Ala
		115					120					125			
Arg	Glu	Arg	Glu	Asp	Thr	Met	Glu	Ala	Ser	Arg	His	Pro	Glu	Thr	Lys
	130					135					140				
Trp	His	Gly	Pro	Pro	Ser	Lys	Val	Leu	Gly	Ser	Tyr	Lys	Glu	Arg	Ala
145					150					155				160	
Leu	Gln	Lys	Asp	Gly	Ser	Cys	Lys	Asp	Ser	Pro	Asn	Lys	Leu	Ser	His

165 170 175
 Ile Gly Asp Lys Ser Cys Ser Ser His Ser Ser Ser Asn Thr Leu Ser
 180 185 190
 Ser Asn Thr Ser Ser Asn Ser Asp Asp Lys His Phe Gly Ser Gly Asp
 195 200 205
 Leu Met Asp Pro Glu Leu Leu Gly Leu Thr Tyr Ile Lys Gly Ala Ser
 210 215 220
 Thr Asp Ser Gly Ile Asp Thr Ala Pro Cys Met Pro Ala Thr Ile Leu
 225 230 235 240
 Gly Pro Val His Leu Ala Gly Ser Arg Ser Leu Ile His Ser Arg Ala
 245 250 255
 Glu Gln Trp Ala Asp Ala Ala Asp Val Ser Gly Pro Asp Asp Glu Pro
 260 265 270
 Ala Lys Leu Tyr Ser Val His Gly Tyr Ala Ser Thr Ile Ser Ala Gly
 275 280 285
 Ser Ala Ala Glu Gly Ser Met Gly Asp Leu Ser Glu Ile Ser Ser His
 290 295 300
 Ser Ser Gly Ser His His Ser Gly Ser Pro Ser Ala His Cys Ser Lys
 305 310 315 320
 Ser Ser Gly Ser Leu Asp Ser Ser Lys Val Tyr Ile Val Ser His Ser
 325 330 335
 Ser Gly Gln Gln Val Pro Gly Ser Met Ser Lys Pro Tyr His Arg Gln
 340 345 350
 Gly Ala Val Asn Lys Tyr Val Ile Gly Trp Lys Lys Ser Glu Gly Ser
 355 360 365
 Pro Pro Pro Glu Glu Pro Glu Val Thr Glu Cys Pro Gly Met Tyr Ser
 370 375 380
 Glu Leu Asp Val Met Ser Thr Ala Thr Gln His Gln Thr Val Val Gly
 385 390 395 400
 Asp Ala Val Ala Glu Thr Gln His Val Leu Ser Lys Glu Asp Phe Leu
 405 410 415
 Lys Leu Met Leu Pro Asp Ser Pro Leu Val Glu Glu Gly Arg Arg Lys
 420 425 430
 Phe Ser Phe Tyr Gly Asn Leu Ser Pro Arg Arg Ser Leu Tyr Arg Thr
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<210> 4015

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4015

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 180
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 240

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 360
 ccggcccttc cgcgtccaag aagtttactt cctaagcctt ttattatgat cttgaatgcg
 420
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<210> 4016

<211> 95

<212> PRT

<213> Homo sapiens

<400> 4016

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<211> 1521

<212> DNA

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<400> 4017

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 325 330 335
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3196

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<213> Homo sapiens

<400> 4020

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			20					25					30		
Leu	Val	Cys	Gly	Leu	Leu	Leu	Val	Ile	Ala	Leu	Gly	Cys	Thr	Cys	Lys
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      115        120        125
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      145        150        155        160
Ala Arg Ser Gln Val Thr Pro Ser Ala Ala Pro Leu Glu Ala Leu Asp
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Gly Gly Thr Gly Pro Ala Arg Glu Gly Gly Ala Val Gly Gly Gln Asp
      180        185        190
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      195        200        205
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<210> 4021

<211> 4209

<212> DNA

<213> Homo sapiens

<400> 4021

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<212> PRT

<213> Homo sapiens

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Arg	Ser	Ser	Ser	Ser	Cys	Val	Pro	Arg	Leu	Phe	Ser	Leu	Thr	Leu	Lys
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3202

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Pro Tyr Gly Asp Val Ile Gly Leu Gln Val Asp Tyr Trp Leu Gly His		
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<211> 5193

<212> DNA

<213> Homo sapiens

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<211> 1690

<212> PRT

<213> Homo sapiens

<400> 4024

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Trp Gly Asp Lys Lys Val Ile Cys Asn Lys Phe Ile Gln Thr Ser Ala			
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Val Thr Cys Leu Gln Trp Pro Ala Glu Tyr Ile Ile Val Phe Gly Leu			
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Ala Glu Gly Lys Val Arg Leu Ala Asn Thr Lys Thr Asn Lys Ser Ser			
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Thr Ile Tyr Gly Thr Glu Ser Tyr Val Val Ser Leu Thr Thr Asn Cys			
85	90	95	
Ser Gly Lys Gly Ile Leu Ser Gly His Ala Asp Gly Thr Ile Val Arg			
100	105	110	
Tyr Phe Phe Asp Asp Glu Gly Ser Gly Glu Ser Gln Gly Lys Leu Val			
115	120	125	
Asn His Pro Cys Pro Pro Tyr Ala Leu Ala Trp Ala Thr Asn Ser Ile			
130	135	140	
Val Ala Ala Gly Cys Asp Arg Lys Ile Val Ala Tyr Gly Lys Glu Gly			
145	150	155	160
His Met Leu Gln Thr Phe Asp Tyr Ser Arg Asp Pro Gln Glu Arg Glu			
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Phe Thr Thr Ala Val Ser Ser Pro Gly Gly Gln Ser Val Val Leu Gly			
180	185	190	
Ser Tyr Asp Arg Leu Arg Val Phe Asn Trp Ile Pro Arg Arg Ser Ile			
195	200	205	
Trp Glu Glu Ala Lys Pro Lys Glu Ile Thr Asn Leu Tyr Thr Ile Thr			
210	215	220	
Ala Leu Ala Trp Lys Arg Asp Gly Ser Arg Leu Cys Val Gly Thr Leu			
225	230	235	240
Cys Gly Gly Val Glu Gln Phe Asp Cys Cys Leu Arg Arg Ser Ile Tyr			
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Lys Asn Lys Phe Glu Leu Thr Tyr Val Gly Pro Ser Gln Val Ile Val			
260	265	270	
Lys Asn Leu Ser Ser Gly Thr Arg Val Val Leu Lys Ser His Tyr Gly			
275	280	285	
Tyr Glu Val Glu Glu Val Lys Ile Leu Gly Lys Glu Arg Tyr Leu Val			
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Ala His Thr Ser Glu Thr Leu Leu Leu Gly Asp Leu Asn Thr Asn Arg			
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Leu Val Glu Tyr Gly Asn Asn Asp Thr Leu Gly Ser Val Arg Thr Glu			
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Phe Met Asn Pro His Leu Ile Ser Val Arg Ile Asn Glu Arg Cys Gln			
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Arg Gly Thr Glu Asp Asn Lys Lys Leu Ala Tyr Leu Ile Asp Ile Lys			
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Thr Ile Ala Ile Val Asp Leu Ile Gly Gly Tyr Asn Ile Gly Thr Val			
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Ser His Glu Ser Arg Val Asp Trp Leu Glu Leu Asn Glu Thr Gly His			
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Lys Leu Leu Phe Arg Asp Arg Lys Leu Arg Leu His Leu Tyr Asp Ile			

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 Ile Arg Gly Asp Val Ile Gly Leu Glu Arg Gly Gly Gly Lys Thr Glu
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 Gly Leu Ile Glu Phe Gly Thr Ala Ile Asp Asp Gly Asn Tyr Ile Arg
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 Gly Gly Glu Gly Thr Asp Phe Tyr Gln Val Arg Ala Arg Leu Ala Met
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 Glu Cys Ile Ala Val Ala Glu Ala Lys Gly His Pro Ala Leu Glu Lys
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 820 825 830
 Ala Ile Tyr Ile Leu Asp Leu Gln Asp Arg Asn Thr Ala Ser Lys Tyr
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 Tyr Pro Leu Val Ala Gln His Tyr Ala Ser Leu Gln Glu Tyr Glu Ile
 850 855 860
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3209

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His Tyr Lys Glu Phe Leu Lys Asn Gln Gly Lys Val Asp Ser Leu Val		
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Gly Val Asp Val Ile Ala Ala Leu Asp Leu Tyr Val Glu Gln Gly Gln		
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Trp Asp Lys Cys Ile Glu Thr Ala Thr Lys Gln Asn Tyr Lys Ile Leu		
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His Lys Tyr Val Ala Leu Tyr Ala Thr His Leu Ile Arg Glu Gly Ser		
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Ser Pro Gly Thr Asn Cys Ala Glu Ala Tyr His Ser Trp Ala Asp Leu		
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Arg Asp Val Leu Phe Asn Leu Ala Val Leu Ser Pro Ser Ser Ser Val		
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Lys Thr Trp Lys Ser Ser Glu Ala Asn Ser Pro Ala His Glu Glu Phe		
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Gln Ser Val Lys Gln Leu Glu Thr Val Ala Ala Arg Leu Ser Val Ser		
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Phe Leu Asn Arg Phe Leu Asp Leu Thr Asp Ala Ile Glu Glu Gly Thr		
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Leu Asp Gly Leu Asp His Ser Asp Phe Gln Asp Thr Asp Ile Pro Phe		
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Glu Val Pro Leu Pro Ala Lys Gln His Val Pro Glu Ala Glu Arg Glu		
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Gln Val Leu Pro Arg Asp Glu Arg Gly Ala Tyr Glu Ala Ser Leu Val		
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Ala Ala Ser Thr Gly Val Arg Ala Leu Pro Cys Leu Ile Thr Gly Tyr		
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Pro Ile Leu Arg Asn Lys Ile Glu Phe Lys Arg Pro Gly Lys Ala Ala		
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Asn Lys Asp Asn Trp Asn Lys Phe Leu Met Ala Ile Lys Thr Ser His		
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<211> 908

<212> DNA

<213> Homo sapiens

<400> 4025

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<211> 302

<212> PRT

<213> Homo sapiens

<400> 4026

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Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Gln	Cys	Phe	His	Val	Phe	Arg
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Thr	Ser	Cys	Asn	Leu	Lys	Ser	His	Lys	Arg	Ile	His	Thr	Gly	Glu	Asn
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Leu	Thr	Gly	His	Asn	Cys	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys
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<212> DNA
<213> Homo sapiens
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<210> 4028

<211> 236

<212> PRT

<213> Homo sapiens

<400> 4028

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			20					25					30		
Lys	Glu	Leu	Met	Val	His	Val	Gly	Gly	Leu	Ile	Gln	Met	Gly	Cys	Val
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Phe	Gln	Ser	Thr	Glu	Val	Lys	His	Val	Thr	Lys	Val	Glu	Trp	Ile	Phe
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Ser	Gly	Arg	Arg	Ala	Lys	Glu	Glu	Ile	Val	Phe	Arg	Tyr	Tyr	His	Lys
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				85					90					95	
Arg	Val	Asn	Leu	Val	Gly	Asp	Ile	Phe	Arg	Asn	Asp	Gly	Ser	Ile	Met
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Leu	Gln	Gly	Val	Arg	Glu	Ser	Asp	Gly	Gly	Asn	Tyr	Thr	Cys	Ser	Ile
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His	Leu	Gly	Asn	Leu	Val	Phe	Lys	Lys	Thr	Ile	Val	Leu	His	Val	Ser
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Thr	Ile	Leu	Leu	Leu	Pro	Val	Leu	Ile	Leu	Ile	Val	Lys	Lys	Thr	Cys
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Gly	Asn	Lys	Ser	Ser	Val	Asn	Ser	Thr	Val	Leu	Val	Lys	Asn	Thr	Lys
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Lys	Thr	Asn	Pro	Glu	Met	Lys	Glu	Lys	Pro	Cys	His	Phe	Glu	Arg	Cys
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<211> 909

<212> DNA

<213> Homo sapiens

<400> 4029

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 gggatgggggt gggggcgggc tcccctaggg acaggtgcct cgagtgcctg tgctgggggt
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 ccgcggccg cttcttcac tcaggaatct ctcggaccgc ggatcctcag ccccgctcc
 720
 accagccccgc cccagcgctg ggtctgttt gggaggcctg ggccggagca gagcagaggt
 780
 gatccggccc ctgcctgctg ggccgcccgg gttggaaggg agggcagtggt gggcgagat
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<210> 4030

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4030

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 20 25 30
 Arg Gly Pro His Leu Leu Leu Leu His Ala Ala Ala Gly Ala Ala
 35 40 45
 Val Arg Gly Ala Gln Arg Gly Gln His Ala Gly Arg Ala His Ser Ala
 50 55 60
 Ala Glu Asp Asp Ala Val Pro Gly Ala Gln Ser Arg His Arg Gln Cys
 65 70 75 80
 Gly Gly Pro Cys Trp Arg Ala Pro Pro Thr Trp Arg Cys Ser Gly Thr
 85 90 95
 Ala Val Ser Arg Pro Ser Ser Ser Ala Lys Thr Trp Trp Arg Ser Pro
 100 105 110
 Pro Arg Pro Ala Pro Xaa Pro Gly Val Pro Pro Pro Gly Ala Arg Leu

	115		120		125	
Pro	Xaa	Pro	Pro	Ala	Leu	Ser
	130		135		140	
Arg	Asn	Ser	Val	Pro	Pro	Pro
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<210> 4031
 <211> 1406
 <212> DNA
 <213> Homo sapiens

<400> 4031
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 gagtttaaaa aggaggagat gaggaagcta caaaaggaac gtaaagtttt tgaaaagtat
 180
 actacagctg caagaacttt tccagataaa aaggaacgtg aagaaatata gactttaaaa
 240
 cagcaaatag cagatttacg ggaagatttg aaaagaaagg agaccaaata gtcaagtaca
 300
 cacagccgtc tcagaagcca gatacaaata ttagtcagag agaacacaga cctccgggaa
 360
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 420
 agcagcctcg aggtggagaa gaaggacaag cttgcgaaca catctgttcg atttcaaaac
 480
 agtcagattt cttcaggaac ccaggtagaa aaatacaaga aaaattatct tccaatgcaa
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 aaagaggagg aggaagacca agacatacag ggagaaatca gtcacacctga tggaaagggtg
 720
 gaaaagggtt ataagaatgg gtgccgtgtt atactgtttc ccaatggaac tcgaaaggaa
 780
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 840
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 960
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 1020
 gaagaaagca ttttcccaga tggtaacaatt gtcagagtac aacgtgatgg caacaaactc
 1080
 atagagttta ataatggcca aagagaacta catactgccc agttcaagag acgggaatac
 1140
 ccagatggca ctgttaaaac cgtatatgca aacggtcatc aagaaacgaa gtacagatcc
 1200

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 1260
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 1320
 tgtggattct gtttaattta ttgtgtatgt gtggggaaaa gattggattc taaaataaaa
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 1406

<210> 4032

<211> 418

<212> PRT

<213> Homo sapiens

<400> 4032

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Ala	Leu	Glu	Lys	Leu	Arg	Lys	Glu	Ile	Ala	Gly	Phe	Glu	Gln	Gln	Lys
		20					25						30		
Ala	Lys	Glu	Leu	Ala	Arg	Ile	Glu	Glu	Phe	Lys	Lys	Glu	Glu	Met	Arg
		35					40					45			
Lys	Leu	Gln	Lys	Glu	Arg	Lys	Val	Phe	Glu	Lys	Tyr	Thr	Thr	Ala	Ala
	50					55					60				
Arg	Thr	Phe	Pro	Asp	Lys	Lys	Glu	Arg	Glu	Glu	Ile	Gln	Thr	Leu	Lys
65				70					75					80	
Gln	Gln	Ile	Ala	Asp	Leu	Arg	Glu	Asp	Leu	Lys	Arg	Lys	Glu	Thr	Lys
			85				90						95		
Trp	Ser	Ser	Thr	His	Ser	Arg	Leu	Arg	Ser	Gln	Ile	Gln	Met	Leu	Val
			100				105						110		
Arg	Glu	Asn	Thr	Asp	Leu	Arg	Glu	Glu	Ile	Lys	Val	Met	Glu	Arg	Phe
		115					120					125			
Arg	Leu	Asp	Ala	Trp	Lys	Arg	Ala	Glu	Ala	Ile	Glu	Ser	Ser	Leu	Glu
	130					135					140				
Val	Glu	Lys	Lys	Asp	Lys	Leu	Ala	Asn	Thr	Ser	Val	Arg	Phe	Gln	Asn
145				150					155					160	
Ser	Gln	Ile	Ser	Ser	Gly	Thr	Gln	Val	Glu	Lys	Tyr	Lys	Lys	Asn	Tyr
			165				170						175		
Leu	Pro	Met	Gln	Gly	Asn	Pro	Pro	Arg	Arg	Ser	Lys	Ser	Ala	Pro	Pro
		180					185						190		
Arg	Asp	Leu	Gly	Asn	Leu	Asp	Lys	Gly	Gln	Ala	Ala	Ser	Pro	Arg	Glu
	195						200					205			
Pro	Leu	Glu	Pro	Leu	Asn	Phe	Pro	Asp	Pro	Glu	Tyr	Lys	Glu	Glu	Glu
	210					215					220				
Glu	Asp	Gln	Asp	Ile	Gln	Gly	Glu	Ile	Ser	His	Pro	Asp	Gly	Lys	Val
225				230					235					240	
Glu	Lys	Val	Tyr	Lys	Asn	Gly	Cys	Arg	Val	Ile	Leu	Phe	Pro	Asn	Gly
			245				250						255		
Thr	Arg	Lys	Glu	Val	Ser	Ala	Asp	Gly	Lys	Thr	Ile	Thr	Val	Thr	Phe
		260					265						270		
Phe	Asn	Gly	Asp	Val	Lys	Gln	Val	Met	Pro	Asp	Gln	Arg	Val	Ile	Tyr
	275						280					285			
Tyr	Tyr	Ala	Ala	Ala	Gln	Thr	Thr	His	Thr	Thr	Tyr	Pro	Glu	Gly	Leu
	290					295					300				
Glu	Val	Leu	His	Phe	Ser	Ser	Gly	Gln	Ile	Glu	Lys	His	Tyr	Pro	Asp

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305          310          315          320
Gly Arg Lys Glu Ile Thr Phe Pro Asp Gln Thr Val Lys Asn Leu Phe
          325          330          335
Pro Asp Gly Gln Glu Glu Ser Ile Phe Pro Asp Gly Thr Ile Val Arg
          340          345          350
Val Gln Arg Asp Gly Asn Lys Leu Ile Glu Phe Asn Asn Gly Gln Arg
          355          360          365
Glu Leu His Thr Ala Gln Phe Lys Arg Arg Glu Tyr Pro Asp Gly Thr
          370          375          380
Val Lys Thr Val Tyr Ala Asn Gly His Gln Glu Thr Lys Tyr Arg Ser
385          390          395          400
Gly Arg Ile Arg Val Lys Asp Lys Glu Gly Asn Val Leu Met Asp Thr
          405          410          415
Glu Leu

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<210> 4033
 <211> 487
 <212> DNA
 <213> Homo sapiens

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<400> 4033
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120
tcaagaagag ccctcctagt ttggcctcta actggctgtg cgaccccagg caggtcactt
180
gtcctctctg ggaagcagct gaataatgaa cactgggatt ttcccaggct ggcttctcac
240
tgcagagcag aggaaaagca ttctgggggc ctgctatgga gggtcattta tccagtttac
300
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360
cagctctgca ccagttggac gccttccaag aaaaactcag gctccggggg ctgcttgta
420
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ccagtcc
487

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<210> 4034
 <211> 94
 <212> PRT
 <213> Homo sapiens

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<400> 4034
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Lys Ser Ile Leu Gly Ala Cys Tyr Gly Gly Ser Phe Ile Gln Phe Thr
          20          25          30
Thr Ser Thr Ala Gly Pro Gln Trp Leu Pro Phe Ser Pro Thr Arg Ala
          35          40          45
Leu Gly Gln Ala Ser Ser Ala Pro Val Gly Arg Leu Pro Arg Lys Thr

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50 55 60
 Gln Ala Pro Gly Ala Ala Cys Gln Asp Gln Thr Gly Gly Leu Ala Pro
 65 70 75 80
 Pro Pro Ala Met Cys Gly Glu Arg Ala Ser Pro Ser Gln Ser
 85 90

<210> 4035
 <211> 343
 <212> DNA
 <213> Homo sapiens

<400> 4035
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 120
 tcctatggga gggacaaact ctcagaaaat agcaagagta ttttggaatc ctatctgagg
 180
 tataaacact cagaacctca tagcagtgtt caggaatcct atgtgagggga caaacattca
 240
 gaccacagca ggagcattct agaatcctat ttgaggaaca aacattcaga caatcgtagc
 300
 agtgtttctgg aatccttttt ttttttgaag ctttcaatct ctt
 343

<210> 4036
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4036
 Xaa Leu Asn Ser Ser Val Met Glu Phe His Val Arg His Lys His Ser
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 Asp Asn Pro Ser Asn Val Leu Glu Ser Tyr Val Arg Asp Lys His Ser
 20 25 30
 Asp Pro Ser Ser Asn Val Leu Glu Ser Tyr Gly Arg Asp Lys Leu Ser
 35 40 45
 Glu Asn Ser Lys Ser Ile Leu Glu Ser Tyr Leu Arg Tyr Lys His Ser
 50 55 60
 Glu Pro His Ser Ser Val Gln Glu Ser Tyr Val Arg Asp Lys His Ser
 65 70 75 80
 Asp His Ser Arg Ser Ile Leu Glu Ser Tyr Leu Arg Asn Lys His Ser
 85 90 95
 Asp Asn Arg Ser Ser Val Leu Glu Ser Phe Phe Phe Leu Lys Leu Ser
 100 105 110
 Ile Ser

<210> 4037
 <211> 741
 <212> DNA
 <213> Homo sapiens

<400> 4037

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 120
 ggaggagaag gggttggtct tgctgtctca gggcggcaga ggcagaagag aatctgagca
 180
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 240
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 tccctttcca gggttctagc ctgttcatct agcccatga tggctgtgga catcgagtac
 360
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 420
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 480
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 720
 caggccgacc acgtctgcct t
 741

<210> 4038

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4038

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Arg	Gln	Glu	Arg	Phe	Ala	Phe	Lys	Ile	Ser	Pro	Lys	Pro	Ser	Lys	Pro
			20					25					30		
Leu	Arg	Pro	Cys	Ile	Gln	Leu	Ser	Ser	Lys	Asn	Glu	Ala	Ser	Gly	Met
		35					40					45			
Val	Ala	Pro	Ala	Val	Gln	Glu	Lys	Lys	Val	Lys	Lys	Arg	Val	Ser	Phe
	50				55					60					
Ala	Asp	Asn	Gln	Gly	Leu	Ala	Leu	Thr	Met	Val	Lys	Val	Phe	Ser	Glu
65					70				75					80	
Phe	Asp	Asp	Pro	Leu	Asp	Met	Pro	Phe	Asn	Ile	Thr	Glu	Leu	Leu	Asp
			85					90					95		
Asn	Ile	Val	Ser	Leu	Thr	Thr	Ala	Glu	Ser	Glu	Ser	Phe	Val	Leu	Asp
			100				105						110		
Phe	Ser	Gln	Pro	Ser	Ala	Asp	Tyr	Leu	Asp	Phe	Arg	Asn	Arg	Leu	Gln
		115					120					125			
Ala	Asp	His	Val	Cys	Leu										
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<210> 4039

<211> 1503

<212> DNA

<213> Homo sapiens

<400> 4039

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120
gagcgaggag ccctcgacg cgctagtctg cgagtgagcg ctcagcccgg cacctgttcc
180
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cccacgcctg ccactttgc tagcccggtg gtgcccctca ctatcagaga ctgggcgaag
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1320
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1380
caaaagtgtc cttgacatcc gtgacaccgt tttgactttt tgtttttttc ttatttaaca
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1500

aaa
1503

<210> 4040
<211> 100
<212> PRT
<213> Homo sapiens

<400> 4040
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Thr Ala Gln Gly Leu Ser Lys Ala Glu Arg Gly Ala Leu Ala Arg Ala
20 25 30
Ser Leu Arg Val Ser Ala Gln Pro Gly Thr Cys Ser Ser Ser Ala Ala
35 40 45
Ala Phe Pro Pro Leu Gly Pro Ala Pro Leu Ala Ala Pro Ala Arg Ser
50 55 60
Cys Asp Glu Ser Gly Pro Arg Gln Pro Asp Gly Arg Gly Gly Pro Ser
65 70 75 80
Trp Pro Thr Ala Ala Arg Arg Trp Ser Glu Pro Cys Ala Ala Ala Pro
85 90 95
Arg Arg Pro Trp
100

<210> 4041
<211> 573
<212> DNA
<213> Homo sapiens

<400> 4041
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120
tgtgttgcca attcagatga acagcttggg gagatgtttc tggaagaaaa aatcccctcg
180
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240
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420
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480
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caacggctgg ctgcgatgca tgccgacatg atg
573

<210> 4042
<211> 191
<212> PRT

<213> Homo sapiens

<400> 4042

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 Ile Val Arg Tyr Gly Glu Ile Pro Ala Glu Leu Arg Ala Ala Ala Thr
 20 25 30
 Asp His Arg Gln Glu Leu Ile Glu Cys Val Ala Asn Ser Asp Glu Gln
 35 40 45
 Leu Gly Glu Met Phe Leu Glu Glu Lys Ile Pro Ser Ile Ser Asp Leu
 50 55 60
 Lys Leu Ala Ile Arg Arg Ala Thr Leu Lys Arg Ser Phe Thr Pro Val
 65 70 75 80
 Phe Leu Gly Ser Ala Leu Lys Asn Lys Gly Val Gln Pro Leu Leu Asp
 85 90 95
 Ala Val Leu Glu Tyr Leu Pro Asn Pro Ser Glu Val Gln Asn Tyr Ala
 100 105 110
 Ile Leu Asn Lys Glu Asp Asp Ser Lys Glu Lys Thr Lys Ile Leu Met
 115 120 125
 Asn Ser Ser Arg Asp Asn Ser His Pro Phe Val Gly Leu Ala Phe Lys
 130 135 140
 Leu Glu Val Gly Arg Phe Gly Gln Leu Thr Tyr Val Arg Ser Tyr Gln
 145 150 155 160
 Gly Glu Leu Lys Lys Gly Asp Thr Ile Tyr Asn Thr Arg Thr Arg Lys
 165 170 175
 Lys Val Arg Leu Gln Arg Leu Ala Arg Met His Ala Asp Met Met
 180 185 190

<210> 4043

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4043

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 120
 ctcccaaaaa aagacccaaa agttaaggt gtccaatcag cagctgtaca agcttttctt
 180
 aaaaggaaag aagaggagct gagacgaaaa gccttagagg agaaaaggag aaaagaggaa
 240
 ctagtgaaaa agcgaattga gctcaaacat gacaagaaag caagagctat ggccaagagg
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 420
 aatgaattcc tcgagtacaa tcacgcagag tcagagcagg agtatgagga agagcaagaa
 480
 cctcccaaag ttgaaagcaa accaaaggtc tcccttaaag gtgccccacc acccatgaac
 540
 ttcactgatt tactcaggct ggctgagaaa aagcagtttg aaccagtggg aatcaaggta
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gtgaagaaat cagaagagcg acctatgacc gcagaagaac ttagggagcg agaattcctt
 660
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 720
 aaaaaggcac ctctcggacg gaag
 744

<210> 4044
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 4044
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 Pro Lys Val Lys Gly Val Gln Ser Ala Ala Val Gln Ala Phe Leu Lys
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 Arg Lys Glu Glu Glu Leu Arg Arg Lys Ala Leu Glu Glu Lys Arg Arg
 35 40 45
 Lys Glu Glu Leu Val Lys Lys Arg Ile Glu Leu Lys His Asp Lys Lys
 50 55 60
 Ala Arg Ala Met Ala Lys Arg Thr Lys Asp Asn Phe His Gly Tyr Asn
 65 70 75 80
 Gly Ile Pro Ile Glu Glu Lys Ser Lys Lys Arg Gln Ala Thr Glu Ser
 85 90 95
 His Thr Ser Gln Gly Thr Asp Arg Glu Tyr Glu Met Glu Glu Glu Asn
 100 105 110
 Glu Phe Leu Glu Tyr Asn His Ala Glu Ser Glu Gln Glu Tyr Glu Glu
 115 120 125
 Glu Gln Glu Pro Pro Lys Val Glu Ser Lys Pro Lys Val Ser Leu Lys
 130 135 140
 Gly Ala Pro Pro Pro Met Asn Phe Thr Asp Leu Leu Arg Leu Ala Glu
 145 150 155 160
 Lys Lys Gln Phe Glu Pro Val Glu Ile Lys Val Val Lys Lys Ser Glu
 165 170 175
 Glu Arg Pro Met Thr Ala Glu Glu Leu Arg Glu Arg Glu Phe Leu Glu
 180 185 190
 Arg Lys His Arg Arg Lys Lys Leu Glu Thr Asp Gly Lys Leu Pro Pro
 195 200 205
 Thr Val Ser Lys Lys Ala Pro Leu Gly Arg Lys
 210 215

<210> 4045
 <211> 2217
 <212> DNA
 <213> Homo sapiens

<400> 4045
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 120
 aattgaaaaa aacttagaat tttaaagctg agaaagagtt atcgctgtga tgattttgtg
 180

gttaatgaca ccaagctggg actggtacag aaagtcagag aacacttaca gaacttgga
240
aactcagctt tcacagctga caggcataag aaaagaaaac ttttgaaaa ctcaacacta
300
aacagcaagt tattaagaat aaatggaagc accactgcca tttgtgccac aggccttcgg
360
aatttgggga acacatgttt catgaatgcc atccttcagt cactcagtaa cattgagcag
420
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480
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660
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<211> 437

<212> PRT

<213> Homo sapiens

<400> 4046

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 Gly Ser Gly His Tyr Thr Ala Tyr Ala Thr His Glu Gly Arg Trp Phe
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<211> 809

<212> DNA

<213> Homo sapiens

<400> 4047

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 Lys Val Tyr Val Gln Leu Trp Arg Arg Leu Lys Ala Tyr Asn Arg Val
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 Ile Phe Val Gln Asn Cys Pro Asp Thr Ala Lys Lys Leu Glu Lys Asn
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<211> 403

<212> PRT

<213> Homo sapiens

<400> 4050

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Tyr Thr Lys Leu Lys Asp Ser Ser Lys Leu Glu Glu Phe Ile Lys Lys		
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Lys Ser Glu Ser Glu Val His Phe Asp Val Glu Thr Ala Ile Lys Val		
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His Ala His His Glu Trp Tyr Leu Lys Ile Gln Leu Glu Asp Ile Lys		
275	280	285
Asn Tyr Gln Glu Ala Leu Arg Tyr Ile Gly Lys Leu Pro Phe Glu Gln		
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Pro Glu Gln Thr Thr Gln Leu Leu Lys Gly Leu Cys Thr Asp Tyr Arg		
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Pro Ser Leu Glu Gly Arg Ser Asp Arg Glu Ala Pro Gly Cys Arg Ala		
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Asn Ser Glu Glu Phe Ile Pro Ile Phe Ala Asn Asn Pro Arg Glu Leu		
355	360	365
Lys Ala Phe Leu Glu His Met Ser Glu Val Gln Pro Asp Ser Pro Gln		
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<211> 1645

<212> DNA

<213> Homo sapiens

<400> 4051

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<211> 93

<212> PRT

<213> Homo sapiens

<400> 4052

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 35 40 45
 Pro Thr Lys Pro Leu Pro Pro Ala Pro Pro Ser Met Gly Ser Asp Ser
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<211> 2434

<212> PRT

<213> Homo sapiens

<400> 4056

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Cys	Phe	Ala	Ser	Leu	Ala	Asp	Arg	Phe	Thr	Arg	Arg	Gly	Val	Asp	Pro	35	40	45	
Ala	Pro	Leu	Ala	Lys	His	Gly	Leu	Thr	Glu	Glu	Leu	Leu	Ser	Arg	Met	50	55	60	
Ala	Ala	Ala	Gly	Gly	Thr	Val	Ser	Gly	Pro	Ser	Ser	Ala	Cys	Lys	Pro	65	70	75	80
Gly	Arg	Ser	Thr	Thr	Gly	Ala	Pro	Ser	Thr	Thr	Ala	Asp	Ser	Lys	Leu	85	90	95	
Ser	Asn	Gln	Val	Ser	Thr	Ile	Val	Ser	Leu	Leu	Ser	Thr	Leu	Cys	Arg	100	105	110	
Gly	Ser	Pro	Val	Val	Thr	His	Asp	Leu	Leu	Arg	Ser	Glu	Leu	Pro	Asp	115	120	125	
Ser	Ile	Glu	Ser	Ala	Leu	Gln	Gly	Asp	Glu	Arg	Cys	Val	Leu	Asp	Thr	130	135	140	
Met	Arg	Leu	Val	Asp	Leu	Leu	Val	Leu	Leu	Phe	Glu	Gly	Arg	Lys		145	150	155	160
Ala	Leu	Pro	Lys	Ser	Ser	Ala	Gly	Ser	Thr	Gly	Arg	Ile	Pro	Gly	Leu	165	170	175	
Arg	Arg	Leu	Asp	Ser	Ser	Gly	Glu	Arg	Ser	His	Arg	Gln	Leu	Ile	Asp	180	185	190	
Cys	Ile	Arg	Ser	Lys	Asp	Thr	Asp	Ala	Leu	Ile	Asp	Ala	Ile	Asp	Thr	195	200	205	
Gly	Ala	Phe	Glu	Val	Asn	Phe	Met	Asp	Asp	Val	Gly	Gln	Thr	Leu	Leu	210	215	220	
Asn	Trp	Ala	Ser	Ala	Phe	Gly	Thr	Gln	Glu	Met	Val	Glu	Phe	Leu	Cys	225	230	235	240
Glu	Arg	Gly	Ala	Asp	Val	Asn	Arg	Gly	Gln	Arg	Ser	Ser	Ser	Leu	His	245	250	255	
Tyr	Ala	Ala	Cys	Phe	Gly	Arg	Pro	Gln	Val	Ala	Lys	Thr	Leu	Leu	Arg	260	265	270	
His	Gly	Ala	Asn	Pro	Asp	Leu	Arg	Asp	Glu	Asp	Gly	Lys	Thr	Pro	Leu	275	280	285	
Asp	Lys	Ala	Arg	Glu	Arg	Gly	His	Ser	Glu	Val	Val	Ala	Ile	Leu	Gln	290	295	300	
Ser	Pro	Gly	Asp	Trp	Met	Cys	Pro	Val	Asn	Lys	Gly	Asp	Asp	Lys	Lys				

3238

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Asp	Leu	Asp	Met	Lys	Gln	Asp	Cys	Ser	Gln	Leu	Val	Glu	Arg	Ile	Asn															
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Val	Phe	Lys	Thr	Ala	Phe	Ser	Glu	Asn	Glu	Asp	Asp	Glu	Ser	Arg	Pro															
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Gln	Ile	Leu	Thr	Arg	Arg	Leu	Arg	Phe	Arg	Leu	Glu	Arg	Ala	Pro	Gly															
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Glu	Thr	Ala	Leu	Ile	Asp	Arg	Thr	Gly	Arg	Met	Leu	Lys	Met	Glu	Pro															
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Lys	Gln	Trp	Tyr	Asp	Phe	Asp	Arg	Ser	Ser	Phe	Val	Phe	Val	Arg	Lys															
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Leu	Arg	Glu	Gly	Gln	Asn	Phe	Ile	Phe	Arg	His	Gln	His	Asp	Phe	Asp															
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Arg	His	Ala	Arg	Gly	Tyr	Gly	Arg	Ser	Ala	Leu	Arg	Asn	Trp	Val	Phe															
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 3780
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 3900
 tctaactga tacaagtagt tgacagattt caactatcaa tcaccagtcc aaccatttc
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 tcatttaaca gatgacggag ataatcccta aaagcaccca catttgtttc aatgccccaa
 4020
 acaggccaag gtcctctagc aactccctag tggcgttttt taacttctca gaaactgtta
 4080
 ccattatttg aaataggctt ccttaacctc ctttacctt aaccaacag ggattta
 4137

<210> 4064
 <211> 818
 <212> PRT
 <213> Homo sapiens

<400> 4064

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Asp Val Glu Leu Gly Ser Met Gln Val Met Asn Lys Thr Arg Arg Ile
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Met Glu Gln Gly Gly Thr His Phe Ile Asn Ala Phe Val Thr Thr Pro
      20              25              30
Met Cys Cys Pro Ser Arg Ser Ser Ile Leu Thr Gly Lys Tyr Val His
      35              40              45
Asn His Asn Thr Tyr Thr Asn Asn Glu Asn Cys Ser Ser Pro Ser Trp
      50              55              60
Gln Ala Gln His Glu Ser Arg Thr Phe Ala Val Tyr Leu Asn Ser Thr
      65              70              75              80
Gly Tyr Arg Thr Ala Phe Phe Gly Lys Tyr Leu Asn Glu Tyr Asn Gly
      85              90              95
Ser Tyr Val Pro Pro Gly Trp Lys Glu Trp Val Gly Leu Leu Lys Asn
      100             105             110
Ser Arg Phe Tyr Asn Tyr Thr Leu Cys Arg Asn Gly Val Lys Glu Lys
      115             120             125
His Gly Ser Asp Tyr Ser Lys Asp Tyr Leu Thr Asp Leu Ile Thr Asn
      130             135             140
Asp Ser Val Ser Phe Phe Arg Thr Ser Lys Lys Met Tyr Pro His Arg
      145             150             155             160
Pro Val Leu Met Val Ile Ser His Ala Ala Pro His Gly Pro Glu Asp
      165             170             175
Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser Gln His Ile
      180             185             190
Thr Pro Ser Tyr Asn Tyr Ala Pro Asp Pro Asp Lys His Trp Ile Met
      195             200             205
Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe Thr Asn Met
      210             215             220
Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp Asp Ser Met
      225             230             235             240
Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu Asp Asn Thr
      245             250             255
Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly Gln Phe Gly
      260             265             270
Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile Arg Val Pro
      275             280             285
Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu Asn Pro His
      290             295             300
Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp Ile Ala Gly
      305             310             315             320
Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu Lys Leu Leu
      325             330             335
Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys Lys Met Arg
      340             345             350
Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu Leu His Lys
      355             360             365
Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Glu Asn Phe Leu Pro Lys

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370	375	380
Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg Ala Glu Tyr Gln Thr Ala		
385	390	395
Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys Val Glu Asp Ala Thr Gly		400
	405	410
Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu Gly Gly Ser		415
	420	425
Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln Gly Ser Glu		430
	435	440
Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu Ala Gly Arg		445
	450	455
Arg Lys Lys Xaa Leu Gln Glu Glu Xaa Tyr Lys Ala Ser Tyr Val Arg		460
465	470	475
Asn Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg Val Tyr		480
	485	490
His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr Lys Arg		495
	500	505
His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly Gly Asp		510
	515	520
Xaa Ser Val Ala Leu Glu Ala Phe Pro Thr Thr Gln Pro Pro Thr Xaa		525
	530	535
Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val Gln		540
545	550	555
Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His Lys		560
	565	570
Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys Asn		575
	580	585
Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu Cys		590
	595	600
Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu Lys		605
	610	615
His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu Lys		620
625	630	635
Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu Arg		640
	645	650
Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro Gly		655
	660	665
Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro Phe		670
	675	680
Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn Thr		685
	690	695
Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe Cys		700
705	710	715
Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp Pro		720
	725	730
Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu Asn		735
	740	745
Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr Lys		750
	755	760
Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp Gly		765
	770	775
Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro Glu		780
785	790	795
Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly Trp		800

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<210> 4066
<211> 210
<212> PRT
<213> Homo sapiens
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<400> 4066																
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		20						25				30				
Phe	Pro	Leu	Leu	Leu	Asn	Cys	Phe	Gly	Gln	Pro	Gly	Thr	Lys	Trp	Ile	
		35					40					45				
Pro	Phe	Ser	Tyr	Thr	Tyr	Arg	Arg	Pro	Leu	Arg	Thr	His	Tyr	Gly	Tyr	
		50				55					60					
Ile	Asn	Val	Lys	Thr	Gln	Glu	Pro	Leu	Gln	Leu	Asp	Cys	Asp	Leu	Cys	
65					70					75				80		
Ala	Ile	Val	Ser	Asn	Ser	Gly	Gln	Met	Val	Gly	Gln	Lys	Val	Gly	Asn	
				85					90					95		
Glu	Ile	Asp	Arg	Ser	Ser	Cys	Ile	Trp	Arg	Met	Asn	Asn	Ala	Pro	Thr	

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<210> 4067
<211> 1800
<212> DNA
<213> Homo sapiens
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120
tcgccttccc gtgttctcca tcttcgaaaa attccatgtg atgtcaccga agcagagatc
180
atatcattag gtctaccatt tggcaaagta actaatcttt tgatgttgaa aggaaaaagc
240
caggctttct tagaaatggc ttctgaggaa gctgccgtta ctatggtgaa ttattacact
300
cctattactc ctacacctcg aagccagcct gtttatattc agtattccaa tcacagagaa
360
cttaagactg acaatctacc taatcaagct cgagcccaag ctgcaactgca ggctgtcagt
420
gccgtccaat caggaagcct ggccctttct ggaggtcctt ccaatgaagg cacagtctta
480
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540
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600
aagaataatc agtttcaagc cttgcttcag tatgctgacc cagtaaagtc acattatgcc
660
aaaatggctc tggatggcca gaatatctat aatgcatgct gcactctgcg cattgacttc
720
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780
ttagaccttc ctactggtga tggccagcca tcccttgaa cccctatggc tgctgctttt
840
gggtgcaccg gtataatttc ttcaccatat gcaggggctg ctggatttgc ccagccatt
900
ggatttcctc aagctacagg tctatcagtt ccagctgttc ctggagctct tggtcctctc
960

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acaatcacct cttctgctgt cactggaagg atggccattc ctggggctag tggatatacca
 1020
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 1140
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 1320
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 1380
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 1680
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<210> 4068

<211> 521

<212> PRT

<213> Homo sapiens

<400> 4068

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Phe	Lys	Arg	Asp	Arg	Pro	Pro	Cys	Ser	Pro	Ser	Arg	Val	Leu	His	Leu
		20					25					30			
Arg	Lys	Ile	Pro	Cys	Asp	Val	Thr	Glu	Ala	Glu	Ile	Ile	Ser	Leu	Gly
		35					40					45			
Leu	Pro	Phe	Gly	Lys	Val	Thr	Asn	Leu	Leu	Met	Leu	Lys	Gly	Lys	Ser
	50					55				60					
Gln	Ala	Phe	Leu	Glu	Met	Ala	Ser	Glu	Glu	Ala	Ala	Val	Thr	Met	Val
65				70					75					80	
Asn	Tyr	Tyr	Thr	Pro	Ile	Thr	Pro	His	Leu	Arg	Ser	Gln	Pro	Val	Tyr
			85					90						95	
Ile	Gln	Tyr	Ser	Asn	His	Arg	Glu	Leu	Lys	Thr	Asp	Asn	Leu	Pro	Asn
			100					105					110		
Gln	Ala	Arg	Ala	Gln	Ala	Ala	Leu	Gln	Ala	Val	Ser	Ala	Val	Gln	Ser
		115					120					125			
Gly	Ser	Leu	Ala	Leu	Ser	Gly	Gly	Pro	Ser	Asn	Glu	Gly	Thr	Val	Leu
	130					135					140				
Pro	Gly	Gln	Ser	Pro	Val	Leu	Arg	Ile	Ile	Ile	Glu	Asn	Leu	Phe	Tyr

145 150 155 160
 Pro Val Thr Leu Glu Val Leu His Gln Ile Phe Ser Lys Phe Gly Thr
 165 170 175
 Val Leu Lys Ile Thr Phe Thr Lys Asn Asn Gln Phe Gln Ala Leu
 180 185 190
 Leu Gln Tyr Ala Asp Pro Val Asn Ala His Tyr Ala Lys Met Ala Leu
 195 200 205
 Asp Gly Gln Asn Ile Tyr Asn Ala Cys Cys Thr Leu Arg Ile Asp Phe
 210 215 220
 Ser Lys Leu Thr Ser Leu Asn Val Lys Tyr Asn Asn Asp Lys Ser Arg
 225 230 235 240
 Asp Phe Thr Arg Leu Asp Leu Pro Thr Gly Asp Gly Gln Pro Ser Leu
 245 250 255
 Glu Pro Pro Met Ala Ala Ala Phe Gly Ala Pro Gly Ile Ile Ser Ser
 260 265 270
 Pro Tyr Ala Gly Ala Ala Gly Phe Ala Pro Ala Ile Gly Phe Pro Gln
 275 280 285
 Ala Thr Gly Leu Ser Val Pro Ala Val Pro Gly Ala Leu Gly Pro Leu
 290 295 300
 Thr Ile Thr Ser Ser Ala Val Thr Gly Arg Met Ala Ile Pro Gly Ala
 305 310 315 320
 Ser Gly Ile Pro Gly Asn Ser Val Leu Leu Val Thr Asn Leu Asn Pro
 325 330 335
 Asp Leu Ile Thr Pro His Gly Leu Phe Ile Leu Phe Gly Val Tyr Gly
 340 345 350
 Asp Val His Arg Val Lys Ile Met Phe Asn Lys Lys Glu Asn Ala Leu
 355 360 365
 Val Gln Met Ala Asp Ala Asn Gln Ala Gln Leu Ala Met Asn His Leu
 370 375 380
 Ser Gly Gln Arg Leu Tyr Gly Lys Val Leu Arg Ala Thr Leu Ser Lys
 385 390 395 400
 His Gln Ala Val Gln Leu Pro Arg Glu Gly Gln Glu Asp Gln Gly Leu
 405 410 415
 Thr Lys Asp Phe Ser Asn Ser Pro Leu His Arg Phe Lys Lys Pro Gly
 420 425 430
 Ser Lys Asn Phe Gln Asn Ile Phe Pro Pro Ser Ala Thr Leu His Leu
 435 440 445
 Ser Asn Ile Pro Pro Ser Val Thr Val Asp Asp Leu Lys Asn Leu Phe
 450 455 460
 Ile Glu Ala Gly Cys Ser Val Lys Ala Phe Lys Phe Phe Gln Lys Asp
 465 470 475 480
 Arg Lys Met Ala Leu Ile Gln Leu Gly Ser Val Glu Glu Ala Ile Gln
 485 490 495
 Ala Leu Ile Glu Leu His Asn His Asp Leu Gly Glu Asn His His Leu
 500 505 510
 Arg Val Ser Phe Ser Lys Ser Thr Ile
 515 520

<210> 4069

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4069

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 120
 ttccagcaca cccagcatct ggcaatatca aagcataatc ttatgttcct ttataccatc
 180
 tttattgtgg ccacaaagat aaccatgatg actacacaga cttctactat gacatttgct
 240
 ccttttgagg atacattgag ttggatgcta tttggctggc agcagccggt ttcacatgt
 300
 gagaagaaaa gtgaagcaaa gtcaccttcc aatggcggtg ggtcattggc ctcaaagccg
 360
 gtagatgttg cctcagataa tgtaaaaag aaacatacta agaagaatga ataaatttac
 420
 gtgatgagct ctacaaggcc aaaaattttt tttcttatct acctgttata ttgtgcta
 480
 ttttctatgt atgtgatgtg aaatgaagac tatatatatg gaatggaggt gacagaaaga
 540
 aagaaattct ttgtttgagg gagacttccc ctttctggat tgtatttgta gagtgttacg
 600
 agtgtatcat gtgattatgc tttaccggta taagagattc tgttgtgatt atttgaatag
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 714

<210> 4070

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4070

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Phe	Gln	His	Thr	Gln	His	Leu	Ala	Ile	Ser	Lys	His	Asn	Leu	Met	Phe
			20					25					30		
Leu	Tyr	Thr	Ile	Phe	Ile	Val	Ala	Thr	Lys	Ile	Thr	Met	Met	Thr	Thr
			35				40					45			
Gln	Thr	Ser	Thr	Met	Thr	Phe	Ala	Pro	Phe	Glu	Asp	Thr	Leu	Ser	Trp
			50				55					60			
Met	Leu	Phe	Gly	Trp	Gln	Gln	Pro	Phe	Ser	Ser	Cys	Glu	Lys	Lys	Ser
					70					75					80
Glu	Ala	Lys	Ser	Pro	Ser	Asn	Gly	Val	Gly	Ser	Leu	Ala	Ser	Lys	Pro
				85					90					95	
Val	Asp	Val	Ala	Ser	Asp	Asn	Val	Lys	Lys	Lys	His	Thr	Lys	Lys	Asn
			100					105					110		

Glu

<210> 4071

<211> 601

<212> DNA

<213> Homo sapiens

<400> 4071

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 120
 catccacgat tgctgtagt tcctgcaggc actgcccctc cagctggaga cgtgcatcac
 180
 ccacacacca ggccaggctg aggtggaaag aaggatcctg gtagaaagtg gtgaggttga
 240
 attcctccat gactctgtcc acctctgaaa ccagggtccag gaactgggca tgccctgaag
 300
 tgacctcaag cccaataaag gtcctgggtt tctcttgatt ggtgtaaatac tttacctggt
 360
 tggcagtaaa gaagaatctg tggaaggagg tcatacgggc tttcagagcc tgcacgaagg
 420
 ggaggatcca gtggtggcgc agaaccacac tctgggacag gctgaggtgg aacaccttca
 480
 tccttaccag ccgggggacg agtgcgacc ttccccacg agcgaggcaa ctggggccacc
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 600
 C
 601

<210> 4072

<211> 175

<212> PRT

<213> Homo sapiens

<400> 4072

Met	Val	His	Arg	Arg	Gly	Trp	Pro	Ser	Cys	Leu	Ala	Arg	Gly	Gly	Arg
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Cys	Ala	Leu	Val	Pro	Arg	Leu	Val	Arg	Met	Lys	Val	Phe	His	Leu	Ser
		20						25					30		
Leu	Ser	Gln	Ser	Val	Val	Leu	Arg	His	His	Trp	Ile	Leu	Pro	Phe	Val
		35					40					45			
Gln	Ala	Leu	Lys	Ala	Arg	Met	Thr	Ser	Phe	His	Arg	Phe	Phe	Phe	Thr
		50				55					60				
Ala	Asn	Gln	Val	Lys	Ile	Tyr	Thr	Asn	Gln	Glu	Lys	Thr	Arg	Thr	Phe
65					70					75				80	
Ile	Gly	Leu	Glu	Val	Thr	Ser	Gly	His	Ala	Gln	Phe	Leu	Asp	Leu	Val
			85						90				95		
Ser	Glu	Val	Asp	Arg	Val	Met	Glu	Glu	Phe	Asn	Leu	Thr	Thr	Phe	Tyr
		100					105						110		
Gln	Asp	Pro	Ser	Phe	His	Leu	Ser	Leu	Ala	Trp	Cys	Val	Gly	Asp	Ala
		115					120					125			
Arg	Leu	Gln	Leu	Glu	Gly	Gln	Cys	Leu	Gln	Glu	Leu	Gln	Ala	Ile	Val
		130				135						140			
Asp	Gly	Phe	Glu	Asp	Ala	Glu	Val	Leu	Leu	Arg	Val	His	Thr	Glu	Gln
145					150					155				160	
Val	Arg	Cys	Lys	Ser	Gly	Asn	Lys	Phe	Phe	Ser	Met	Pro	Leu	Lys	
				165					170					175	

<210> 4073

<211> 1864

<212> DNA

<213> Homo sapiens

<400> 4073

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120
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180
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240
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300
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360
aagaaactta cagaagctga tgcttaccta caaatcttga ttgaacaatt aaagcttttt
420
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480
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aaagaccaga gtaatgcga gaagcacgca gatggaatga taagtactat taatcccga
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780
agtggccatt caccaccgag tagcagtctc acttctccaa gccacgtgaa cttgtctcca
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960
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1440
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1500

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 1680
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 1740
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 1860
 attg
 1864

<210> 4074

<211> 456

<212> PRT

<213> Homo sapiens

<400> 4074

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Asp	Gln	Ser	Asn	Ala	Glu	Lys	His	Ala	Asp	Gly	Met	Ile	Ser	Thr	Ile
			20					25				30			
Asn	Pro	Val	Asp	Ala	Ile	Tyr	Gln	Pro	Ser	Pro	Leu	Glu	Pro	Val	Ile
		35					40					45			
Ser	Thr	Met	Pro	Ser	Gln	Thr	Val	Leu	Pro	Pro	Glu	Pro	Val	Gln	Leu
		50				55					60				
Cys	Lys	Ser	Glu	Gln	Arg	Pro	Ser	Ser	Leu	Pro	Val	Gly	Pro	Val	Leu
65					70					75				80	
Ala	Thr	Leu	Gly	His	His	Gln	Thr	Pro	Thr	Pro	Asn	Ser	Thr	Gly	Ser
				85					90					95	
Gly	His	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ser	Pro	Ser	His	Val	Asn
			100					105					110		
Leu	Ser	Pro	Asn	Thr	Val	Pro	Glu	Phe	Ser	Tyr	Ser	Ser	Ser	Glu	Asp
			115				120					125			
Glu	Phe	Tyr	Asp	Ala	Asp	Glu	Phe	His	Gln	Ser	Gly	Ser	Ser	Pro	Lys
		130				135					140				
Arg	Leu	Ile	Asp	Ser	Ser	Gly	Ser	Ala	Ser	Val	Leu	Thr	His	Ser	Ser
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Ser	Gly	Asn	Ser	Leu	Lys	Arg	Pro	Asp	Thr	Thr	Glu	Ser	Leu	Asn	Ser
				165					170					175	
Ser	Leu	Ser	Asn	Gly	Thr	Ser	Asp	Ala	Asp	Leu	Phe	Asp	Ser	His	Asp
			180					185					190		
Asp	Arg	Asp	Asp	Ala	Glu	Ala	Gly	Ser	Val	Glu	Glu	His	Lys	Ser	
		195				200					205				
Val	Ile	Met	His	Leu	Leu	Ser	Gln	Val	Arg	Leu	Gly	Met	Asp	Leu	Thr
		210				215					220				
Lys	Val	Val	Leu	Pro	Thr	Phe	Ile	Leu	Glu	Arg	Arg	Ser	Leu	Leu	Glu
225					230					235				240	
Met	Tyr	Ala	Asp	Phe	Phe	Ala	His	Pro	Asp	Leu	Phe	Val	Ser	Ile	Ser
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<210> 4075
<211> 2492
<212> DNA
<213> Homo sapiens
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660

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<210> 4076
 <211> 410
 <212> PRT
 <213> Homo sapiens

<400> 4076
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 Ala Gly Ile His Arg Asn Leu Gly Val His Ile Ser Arg Val Lys Ser
 35 40 45
 Val Asn Leu Asp Gln Trp Thr Gln Glu Gln Ile Gln Cys Met Gln Glu
 50 55 60
 Met Gly Asn Gly Lys Ala Asn Arg Leu Tyr Glu Ala Tyr Leu Pro Glu
 65 70 75 80
 Thr Phe Arg Arg Pro Gln Ile Asp Pro Ala Val Glu Gly Phe Ile Arg
 85 90 95
 Asp Lys Tyr Glu Lys Lys Lys Tyr Met Asp Arg Ser Leu Asp Ile Asn
 100 105 110
 Ala Phe Arg Lys Glu Lys Asp Asp Lys Trp Lys Arg Gly Ser Glu Pro
 115 120 125
 Val Pro Glu Lys Lys Leu Glu Pro Val Val Phe Glu Lys Val Lys Met
 130 135 140
 Pro Gln Lys Lys Glu Asp Pro Gln Leu Pro Arg Lys Ser Ser Pro Lys
 145 150 155 160
 Ser Thr Ala Pro Val Met Asp Leu Leu Gly Leu Asp Ala Pro Val Ala
 165 170 175
 Cys Ser Ile Ala Asn Ser Lys Thr Ser Asn Thr Leu Glu Lys Asp Leu
 180 185 190
 Asp Leu Leu Ala Ser Val Pro Ser Pro Ser Ser Ser Gly Ser Arg Lys
 195 200 205
 Val Val Gly Ser Met Pro Thr Ala Gly Ser Ala Gly Ser Val Pro Glu
 210 215 220
 Asn Leu Asn Leu Phe Pro Glu Pro Gly Ser Lys Ser Glu Glu Ile Gly
 225 230 235 240
 Lys Lys Gln Leu Ser Lys Asp Ser Ile Leu Ser Leu Tyr Gly Ser Gln
 245 250 255
 Thr Pro Gln Met Pro Thr Gln Ala Met Phe Met Ala Pro Ala Gln Met
 260 265 270
 Ala Tyr Pro Thr Ala Tyr Pro Ser Phe Pro Gly Val Thr Pro Pro Asn
 275 280 285
 Ser Ile Met Gly Ser Met Met Pro Pro Pro Val Gly Met Val Ala Gln
 290 295 300
 Pro Gly Ala Ser Gly Met Val Ala Pro Met Ala Met Pro Ala Gly Tyr

305		310		315		320
Met Gly Gly Met Gln Ala Ser Met Met Gly Val Pro Asn Gly Met Met						
		325		330		335
Thr Thr Gln Gln Ala Gly Tyr Met Ala Gly Met Ala Ala Met Pro Gln						
		340		345		350
Thr Val Tyr Gly Val Gln Pro Ala Gln Gln Leu Gln Trp Asn Leu Thr						
		355		360		365
Gln Met Thr Gln Gln Met Ala Gly Met Asn Phe Tyr Gly Ala Asn Gly						
		370		375		380
Met Met Asn Tyr Gly Gln Ser Met Ser Gly Gly Asn Gly Gln Ala Ala						
		385		390		400
Asn Gln Thr Leu Ser Pro Gln Met Trp Lys						
		405		410		

<210> 4077

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4077

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 180
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<210> 4078

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4078

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<210> 4079
<211> 783
<212> DNA
<213> Homo sapiens
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3266

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 783

<210> 4080
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 4080
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 20 25 30
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 35 40 45
 Glu Ala Leu His Ala Gln Pro Gly Glu Gln Gly Trp Met Gly Leu Lys
 50 55 60
 Arg Ala Gln Pro Ser Pro Glu Arg Thr Leu His Ser Asn Leu Pro Gln
 65 70 75 80
 Ser Trp Gly Lys His Glu Gly Cys Pro Ser Thr Glu Val Asn Pro Gly
 85 90 95
 His Ala Arg Thr Lys
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<210> 4081
 <211> 645
 <212> DNA
 <213> Homo sapiens

<400> 4081
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 180
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 240
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 300
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 360
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 420
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 480
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 540
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<210> 4082

<211> 215

<212> PRT

<213> Homo sapiens

<400> 4082

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Val Arg Pro Val Gln Asn Leu Ala Leu Gly Lys Glu Glu Leu Ile Gly
      35             40             45
Thr Met Glu Gln Ile Phe Met Asn Val Ala Ile Phe Glu Asp Glu Val
      50             55             60
Phe Ala Gly Val Thr Thr His Gln Glu Leu Phe Pro His Ser Leu Leu
65             70             75             80
Ser Val Ile Ala Asn Phe Ile Pro Phe Ser Asp His Asn Gln Ser Pro
      85             90             95
Arg Asn Met Tyr Gln Cys Gln Met Gly Lys Gln Thr Met Gly Phe Pro
      100            105            110
Leu Leu Thr Tyr Gln Asp Arg Ser Asp Asn Lys Leu Tyr Arg Leu Gln
      115            120            125
Thr Pro Gln Ser Pro Leu Val Arg Pro Ser Met Tyr Asp Tyr Tyr Asp
      130            135            140
Met Asp Asn Tyr Pro Ile Gly Thr Asn Ala Ile Val Ala Val Ile Ser
145            150            155            160
Tyr Thr Gly Tyr Asp Met Glu Asp Ala Met Ile Val Asn Lys Ala Ser
      165            170            175
Trp Glu Arg Gly Phe Ala His Gly Ser Val Tyr Lys Ser Glu Phe Ile
      180            185            190
Asp Leu Ser Glu Lys Ile Lys Gln Gly Asp Ser Ser Leu Val Phe Gly
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Ile Lys Pro Gly Asp Pro Arg
      210            215

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<210> 4083

<211> 2983

<212> DNA

<213> Homo sapiens

<400> 4083

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360

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<210> 4084

<211> 362

<212> PRT

<213> Homo sapiens

<400> 4084

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 Val Tyr Gly Leu Asn Phe Ala Ser Lys Glu Glu Ala Thr Thr Phe Ser
 35 40 45
 Asn Ala Met Leu Phe Ala Leu Asn Ile Met Asn Ser Gln Glu Gly Gly
 50 55 60
 Pro Ser Ser Gln Arg Gln Val Gln Asn Gly Pro Ser Pro Asp Glu Met
 65 70 75 80
 Asp Ile Gln Arg Arg Gln Val Met Glu Gln His Gln Gln Gln Arg Gln
 85 90 95
 Glu Ser Leu Glu Arg Arg Thr Ser Ala Thr Gly Pro Ile Leu Pro Pro

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<210> 4085
<211> 2673
<212> DNA
<213> Homo sapiens
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1980
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<210> 4586

<211> 530

<212> PRT

<213> Homo sapiens

<400> 4586

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      50          55          60
Arg Ile Pro Ser Leu Gln Gln Leu His Leu Gln Arg Asn Ala Leu Cys
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Val Ile Pro Gln Asp Phe Phe Gln Leu Leu Pro Asn Leu Thr Trp Leu
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Asp Leu Arg Tyr Asn Arg Ile Lys Ala Leu Pro Ser Gly Ile Gly Ala
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His Gln His Leu Lys Thr Leu Leu Leu Glu Arg Asn Pro Ile Lys Met
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Leu Pro Arg Asn Pro Thr Ser Gln Glu Ala Pro Pro Val Arg Glu Met
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Ala Leu Thr Gly Asn Leu Ser Leu Gly Leu Pro Ala Ala Gln Pro Gln
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Tyr Gln
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<210> 4587

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4587

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<211> 328

<212> PRT

<213> Homo sapiens

<400> 4588

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Ser	Lys	Lys	Ala	Asp	Ser	Val	Ala	Ala	Lys	Val	Asp	Leu	Leu	Gly	Glu
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Lys	Lys	Ser	Ser	Gln	Lys	Lys	Ser	Lys	Lys	Asn	His	Pro	Gln	Lys	
			115				120					125			
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 Lys Gln His Met Val Asn Ala Thr Pro Phe Lys Ile Ala Arg Gly Gln
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<211> 585

<212> DNA

<213> Homo sapiens

<400> 4589

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 His Thr Leu Ser Pro Leu Ser Phe Arg Cys Ser Gln Arg Glu Pro Gln
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 Gly Phe Arg Pro Gly Met Arg Cys Gly Gly Ser Ser Leu Gly Arg Thr
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 Cys Cys Ser Pro Thr Arg Arg Ala Cys Val Val Ser Arg Ala Val Thr
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 <213> Homo sapiens

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Lys Ala Ser Ser Ile Tyr Ser Thr Ala Leu Cys Phe Gly Leu Lys Arg
      35           40           45
Ala Pro Leu Trp Pro Ser Gly His Asp Arg Leu His Glu Thr Arg Lys
      50           55           60
Leu Arg Cys Leu Ala Asp Arg Leu Val Ser Pro His Pro Ala Ser Ser
      65           70           75           80
Pro Gly Ser Arg Tyr Leu Pro Gln Asn Ser Leu His Lys Trp Pro Gln
      85           90           95
Ala Cys Ala Gly Leu Trp Gly Phe Leu Pro Trp Ala Val Val Leu Gly
      100          105          110
Met Cys Ser Pro Gln Ala Asp Gly Gln Leu Trp Glu Gly Trp Ser Cys
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<213> Homo sapiens

<400> 4593

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 4620
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 4680
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<210> 4594

<211> 1145

<212> PRT

<213> Homo sapiens

<400> 4594

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Pro	Ser	Asn	Pro	Phe	Leu	Ala	Phe	Val	Glu	Lys	Val	Glu	His	Ser	Pro
		20						25				30			
Phe	Ser	Ser	Phe	Ala	Ser	Gln	Ala	Ser	Gly	Ser	Ser	Ser	Ser	Ala	Thr
	35					40					45				
Thr	Val	Thr	Ser	Lys	Val	Ala	Pro	Ser	Trp	Pro	Glu	Ser	His	Ser	Ser
	50				55					60					
Ala	Asp	Ser	Ala	Ser	Leu	Ala	Lys	Lys	Lys	Pro	Leu	Phe	Ile	Thr	Thr
65					70					75				80	
Asp	Ser	Ser	Lys	Leu	Val	Ser	Gly	Val	Leu	Gly	Ser	Ala	Leu	Thr	Ser
		85						90					95		
Gly	Gly	Pro	Ser	Leu	Ser	Ala	Met	Gly	Asn	Gly	Arg	Ser	Ser	Ser	Pro
		100						105					110		
Thr	Ser	Ser	Leu	Thr	Gln	Pro	Ile	Glu	Met	Pro	Thr	Leu	Ser	Ser	Ser
		115				120						125			
Pro	Thr	Glu	Glu	Arg	Pro	Thr	Val	Gly	Pro	Gly	Gln	Gln	Asp	Asn	Pro
	130					135				140					
Leu	Leu	Lys	Thr	Phe	Ser	Asn	Val	Phe	Gly	Arg	His	Ser	Gly	Gly	Phe
145					150					155				160	
Leu	Ser	Ser	Pro	Ala	Asp	Phe	Ser	Gln	Glu	Asn	Lys	Ala	Pro	Phe	Glu
		165						170					175		
Ala	Val	Lys	Arg	Phe	Ser	Leu	Asp	Glu	Arg	Ser	Leu	Ala	Cys	Arg	Gln

3794

610	615	620
Gly Ser Leu Arg Ser Val Leu Asn Lys Glu Ser His Ser Pro Phe Gly		
625	630	635
Leu Asp Ser Phe Asn Ser Thr Ala Lys Val Ser Pro Leu Thr Pro Lys		640
	645	650
Leu Phe Asn Ser Leu Leu Leu Gly Pro Thr Ala Ser Asn Asn Lys Thr		655
	660	665
Glu Gly Ser Ser Leu Arg Asp Leu Leu His Ser Gly Pro Gly Lys Leu		670
	675	680
Pro Gln Thr Pro Leu Asp Thr Gly Ile Pro Phe Pro Pro Val Phe Ser		685
	690	695
Thr Ser Ser Ala Gly Val Lys Ser Lys Ala Ser Leu Pro Asn Phe Leu		700
705	710	715
Asp His Ile Ile Ala Ser Val Val Glu Asn Lys Lys Thr Ser Asp Ala		720
	725	730
Ser Lys Arg Ala Cys Asn Leu Thr Asp Thr Gln Lys Glu Val Lys Glu		735
	740	745
Met Val Met Gly Leu Asn Val Leu Asp Pro His Thr Ser His Ser Trp		750
	755	760
Leu Cys Asp Gly Arg Leu Leu Cys Leu His Asp Pro Ser Asn Lys Asn		765
	770	775
Asn Trp Lys Ile Phe Arg Glu Cys Trp Lys Gln Gly Gln Pro Val Leu		780
785	790	795
Val Ser Gly Val His Lys Lys Leu Lys Ser Glu Leu Trp Lys Pro Glu		800
	805	810
Ala Phe Ser Gln Glu Phe Gly Asp Gln Asp Val Asp Leu Val Asn Cys		815
	820	825
Arg Asn Cys Ala Ile Ile Ser Asp Val Lys Val Arg Asp Phe Trp Asp		830
	835	840
Gly Phe Glu Ile Ile Cys Lys Arg Leu Arg Ser Glu Asp Gly Gln Pro		845
	850	855
Met Val Leu Lys Leu Lys Asp Trp Pro Pro Gly Glu Asp Phe Arg Asp		860
865	870	875
Met Met Pro Thr Arg Phe Glu Asp Leu Met Glu Asn Leu Pro Leu Pro		880
	885	890
Glu Tyr Thr Lys Arg Asp Gly Arg Leu Asn Leu Ala Ser Arg Leu Pro		895
	900	905
Ser Tyr Phe Val Arg Pro Asp Leu Gly Pro Lys Met Tyr Asn Ala Tyr		910
	915	920
Gly Leu Ile Thr Ala Glu Asp Arg Arg Val Gly Thr Thr Asn Leu His		925
	930	935
Leu Asp Val Ser Asp Ala Val Asn Val Met Val Tyr Val Gly Ile Pro		940
945	950	955
Ile Gly Glu Gly Ala His Asp Glu Glu Val Leu Lys Thr Ile Asp Glu		960
	965	970
Gly Asp Ala Asp Glu Val Thr Lys Gln Arg Ile His Asp Gly Lys Glu		975
	980	985
Lys Pro Gly Ala Leu Trp His Ile Tyr Ala Ala Lys Asp Ala Glu Lys		990
	995	1000
Ile Arg Glu Leu Leu Arg Lys Val Gly Glu Glu Gln Gly Gln Glu Asn		1005
	1010	1015
Pro Pro Asp His Asp Pro Ile His Asp Gln Ser Trp Tyr Leu Asp Gln		1020
1025	1030	1035
Thr Leu Arg Lys Arg Leu Tyr Glu Glu Tyr Gly Val Gln Gly Trp Ala		1040

	1045	1050	1055
Ile Val Gln Phe Leu Gly Asp Ala Val Phe Ile Pro Ala Gly Ala Pro			
	1060	1065	1070
His Gln Val His Asn Leu Tyr Ser Cys Ile Lys Val Ala Glu Asp Phe			
	1075	1080	1085
Val Ser Pro Glu His Val Lys His Cys Phe Arg Leu Thr Gln Glu Phe			
	1090	1095	1100
Arg His Leu Ser Asn Thr His Thr Asn His Glu Asp Lys Leu Gln Val			
1105	1110	1115	1120
Lys Asn Ile Ile Tyr His Ala Val Lys Asp Ala Val Gly Thr Leu Lys			
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Ala His Glu Ser Lys Leu Ala Arg Ser			
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<210> 4595

<211> 935

<212> DNA

<213> Homo sapiens

<400> 4595

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540
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720
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780
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840
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<210> 4596

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4596

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          20             25             30
Phe Leu Gly Thr Ser Ile Ser Ser Ser Ser Trp Ala Pro Leu Arg
      35             40             45
Gly Arg Glu Ala Ala Leu Pro Gly Pro Ala Gly Asp Xaa Ala Val Lys
 50             55             60
Gly Pro Ala Asp Pro Ala Ala Gln His Ser Arg Asp Gly Gln Gly Gly
65             70             75             80
Trp Pro Pro Ala Gln Gly Thr Ala Ser Thr Ala Gly Lys Ser Gly Ala
          85             90             95
Pro Gly Ala Trp Ser Val Gly Gly Ala Thr Gly Pro Arg Gly Ala Lys
      100             105             110
Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser Pro Gly Ser Pro Pro Arg
      115             120             125
Glu Ser Arg Cys Leu Ala Pro Gly Pro Ser Arg Leu Asp Pro Gly Pro
      130             135             140
Ala Xaa Ala Ala Ala Pro Gly Ala Leu Arg Pro Pro Ala Asp Pro Ser
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Gln Ala Arg Pro Arg Arg Gly Ser Asn
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<210> 4597

<211> 515

<212> DNA

<213> Homo sapiens

<400> 4597

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120
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<210> 4598

<211> 135
 <212> PRT
 <213> Homo sapiens

<400> 4598
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 35 40 45
 Leu Leu Ser Ala Pro Phe Cys Leu Leu Pro Ala Leu Ser Gln Ala Val
 50 55 60
 Ser Pro Arg Asn Ser Leu Arg Asn Ile Leu Thr Leu Asn Ser Thr Ala
 65 70 75 80
 Glu Pro Ser Ser Trp Glu Ser Arg Glu Arg Pro Leu Gln Ser Arg Asn
 85 90 95
 Val Tyr Ser Ser Ala Ser Phe Ser Glu His Leu Asp Gly Gly Cys Ser
 100 105 110
 Pro Leu Val Leu Gln Ser Leu Ala Arg Arg Ile Ser Ser Thr Trp Leu
 115 120 125
 Val Asp Gln Ser Leu Arg Glu
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<210> 4599
 <211> 2314
 <212> DNA
 <213> Homo sapiens

<400> 4599
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 180
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 360
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 420
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 660
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 720

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<210> 4086

<211> 789

<212> PRT

<213> Homo sapiens

<400> 4086

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			20					25					30		
Phe	Leu	Leu	Val	Phe	Ala	Ile	Ala	Ala	Ala	Tyr	Val	Trp	Ile	Glu	
	35					40					45				
Gly	Thr	Lys	Asp	Pro	Ser	Arg	Asn	Arg	Tyr	Lys	Leu	Phe	Leu	Glu	Cys
	50					55				60					
Thr	Leu	Ile	Leu	Thr	Ser	Val	Val	Pro	Pro	Glu	Leu	Pro	Ile	Glu	Leu
65					70					75				80	
Ser	Leu	Ala	Val	Asn	Thr	Ser	Leu	Ile	Ala	Leu	Ala	Lys	Leu	Tyr	Met
			85					90					95		
Tyr	Cys	Thr	Glu	Pro	Phe	Arg	Ile	Pro	Phe	Ala	Gly	Lys	Val	Glu	Val
		100						105					110		
Cys	Cys	Phe	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Ser	Asp	Ser	Leu	Val	Val
	115					120					125				
Arg	Gly	Val	Ala	Gly	Leu	Arg	Asp	Gly	Lys	Glu	Val	Thr	Pro	Val	Ser
	130				135					140					
Ser	Ile	Pro	Val	Glu	Thr	His	Arg	Ala	Leu	Ala	Ser	Cys	His	Ser	Leu
145				150					155				160		
Met	Gln	Leu	Asp	Asp	Gly	Thr	Leu	Val	Gly	Asp	Pro	Leu	Glu	Lys	Ala
		165				170						175			
Met	Leu	Thr	Ala	Val	Asp	Trp	Thr	Leu	Thr	Lys	Asp	Glu	Lys	Val	Phe
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Pro	Arg	Ser	Ile	Lys	Thr	Gln	Gly	Leu	Lys	Ile	His	Gln	Arg	Phe	His

3274

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<400> 4087
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120
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240
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420
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480
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540
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720
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780

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<210> 4088

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4088

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Gln	Trp	Ala	Glu	Gln	Thr	Arg	Arg	Leu	Gln	Arg	Leu	Asp	Val	Ser	Leu
		20						25					30		
Ala	Val	Ala	Arg	Val	Arg	Ser	Ala	Gly	Pro	Ser	Cys	Gln	Asn	Lys	Gly
		35					40					45			
Asp	Leu	Val	Met	Glu	Ala	Leu	Leu	Glu	Gly	Ile	Gln	Asn	Arg	Gly	His
	50					55					60				
Gly	Gly	Gly	Phe	Leu	Thr	Ser	Cys	Glu	Ala	Glu	Leu	Gln	Glu	Leu	Met
65				70						75					80
Lys	Gln	Ile	Asp	Ile	Met	Val	Ala	His	Lys	Lys	Ser	Glu	Trp	Glu	Gly
			85						90					95	
Arg	Thr	His	Ala	Leu	Glu	Thr	Cys	Leu	Lys	Ile	Arg	Glu	Gln	Glu	Leu
			100					105					110		
Lys	Ser	Leu	Arg	Ser	Gln	Leu	Asp	Val	Thr	His	Lys	Glu	Val	Gly	Met
		115				120						125			
Leu	His	Gln	Gln	Val	Glu	Glu	His	Glu	Lys	Ile	Lys	Gln	Glu	Met	Thr
	130					135					140				
Met	Glu	Tyr	Lys	Gln	Glu	Leu	Lys	Lys	Leu	His	Glu	Glu	Leu	Cys	Ile
145				150						155					160
Leu	Lys	Arg	Ser	Tyr	Glu	Lys	Leu	Gln	Lys	Lys	Gln	Met	Arg	Glu	Phe
			165					170						175	
Arg	Gly	Asn	Thr	Lys	Asn	His	Arg	Glu	Asp	Arg	Ser	Glu	Ile	Glu	Arg
		180						185					190		
Leu	Thr	Ala	Lys	Ile	Glu	Glu	Phe	Arg	Gln	Lys	Ser	Leu	Asp	Trp	Glu
		195				200						205			
Lys	Gln	Arg	Leu	Ile	Tyr	Gln	Gln	Gln	Val	Ser	Ser	Leu	Glu	Ala	Gln
	210					215					220				
Arg	Lys	Ala	Leu	Ala	Glu	Gln	Ser	Glu	Ile	Ile	Gln	Ala	Gln	Leu	Val
225				230						235					240
Asn	Arg	Lys	Gln	Lys	Leu	Glu	Ser	Val	Glu	Leu	Ser	Ser	Gln	Ser	Glu
			245						250					255	
Ile	Gln	His	Leu	Ser	Ser	Lys	Leu	Glu	Arg	Ala	Asn	Asp	Thr	Ile	Cys
		260						265					270		
Ala	Asn	Glu	Leu	Glu	Ile	Glu	Arg	Leu	Thr	Met	Arg	Val	Asn	Asp	Leu
	275					280						285			
Val	Gly	Thr	Ser	Met	Thr	Val	Leu	Gln	Glu	Gln	Gln	Gln	Lys	Glu	Glu
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Lys	Leu	Arg	Glu	Ser	Glu	Lys	Leu	Leu	Glu	Ala	Leu	Gln	Glu	Lys	
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 <211> 511
 <212> DNA
 <213> Homo sapiens

<400> 4089
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 511

<210> 4090
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 <212> PRT
 <213> Homo sapiens

<400> 4090
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 Lys Asn Tyr Ala Leu Gln Glu His Val Ser Phe Val Ile Phe Leu Ser
 35 40 45
 Ser Asn Phe Phe Trp Arg Asp Glu Ser Phe Asp Leu Thr Leu Arg Ile
 50 55 60
 Gly Leu Lys Pro Phe Glu Arg Thr Lys Glu Ile Glu Ser Ala Phe Leu
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 85 90 95
 Val Tyr Phe His Cys Leu Trp Lys Ile Glu Tyr Thr Cys
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<210> 4091
 <211> 1526
 <212> DNA
 <213> Homo sapiens

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<211> 146

<212> PRT

<213> Homo sapiens

<400> 4092

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 35 40 45
 Ile Trp Arg Lys Glu Pro Arg Met Val Cys Thr Arg Lys Thr Lys Thr
 50 55 60
 Leu Val Ser Thr Cys Val Ile Leu Ser Gly Met Thr Asn Ile Ile Cys
 65 70 75 80
 Leu Leu Tyr Val Gly Trp Val Thr Asn Tyr Ile Ala Ser Val Tyr Val
 85 90 95
 Arg Gly Gln Glu Pro Ala Pro Asp Lys Lys Leu Glu Glu Asp Lys Gly
 100 105 110
 Asp Thr Leu Lys Ile Ile Glu Arg Leu Asp His Leu Glu Asn Val Ile
 115 120 125
 Lys Gln His Ile Gln Gly Tyr Arg Arg Asn Phe Ser Leu Leu Asn Val
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 Ser Asn
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<210> 4093

<211> 1519

<212> DNA

<213> Homo sapiens

<400> 4093

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<210> 4094

<211> 391

<212> PRT

<213> Homo sapiens

<400> 4094

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His	Asn	Val	Pro	Leu	Lys	Leu	Pro	Met	Pro	Glu	Pro	Gly	Glu	Leu	Glu
			20					25					30		
Glu	Arg	Phe	Ala	Ile	Val	Leu	Asn	Ala	Met	Asn	Leu	Pro	Pro	Asp	Lys
		35					40					45			
Ala	Arg	Leu	Leu	Arg	Gln	Tyr	Asp	Asn	Glu	Lys	Lys	Trp	Glu	Leu	Ile
		50				55					60				
Cys	Asp	Gln	Glu	Arg	Phe	Gln	Val	Lys	Asn	Pro	Pro	His	Thr	Tyr	Ile
				70						75				80	
Gln	Lys	Leu	Lys	Gly	Tyr	Leu	Asp	Pro	Ala	Val	Thr	Arg	Lys	Lys	Phe
			85						90					95	
Arg	Arg	Arg	Val	Gln	Glu	Ser	Thr	Gln	Val	Leu	Arg	Glu	Leu	Glu	Ile
			100					105					110		
Ser	Leu	Arg	Thr	Asn	His	Ile	Gly	Trp	Val	Arg	Glu	Phe	Leu	Asn	Glu
		115					120					125			
Glu	Asn	Lys	Gly	Leu	Asp	Val	Leu	Val	Glu	Tyr	Leu	Ser	Phe	Ala	Gln
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<210> 4095
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<212> DNA
<213> Homo sapiens
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<211> 83
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<213> Homo sapiens
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<400> 4096

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 20 25 30
 Gln Val Arg Lys Leu Arg Leu Lys Arg Asp Gln Val Ala Ser Pro Ala
 35 40 45
 Lys Ser Glu Ala Ser Gly Gly Ala Cys Ala Arg Val Ser Gly Ser Val
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 Cys Pro Gly Ser Ile Ser Ala Cys Val Cys Leu Ser Arg Gln His Ile
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<210> 4097

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 4097

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 360
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 420
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<210> 4098

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4098

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			20					25					30		
Arg	Ala	Arg	Leu	His	Asp	Ser	Leu	Arg	Ala	Val	Leu	Thr	Cys	Ser	Thr
			35				40					45			
Met	Ser	Ala	Lys	Ser	Ala	Ile	Ser	Lys	Glu	Ile	Phe	Ala	Pro	Leu	Asp
			50			55					60				
Glu	Arg	Met	Leu	Gly	Ala	Val	Gln	Val	Lys	Arg	Arg	Thr	Lys	Lys	Lys
					70					75				80	
Ile	Pro	Phe	Leu	Ala	Thr	Gly	Gly	Gln	Gly	Glu	Tyr	Leu	Thr	Tyr	Ile
			85					90					95		
Cys	Leu	Ser	Val	Thr	Asn	Lys	Lys	Pro	Thr	Gln	Ala	Ser	Ile	Thr	Lys
			100					105					110		
Val	Lys	Gln	Phe	Glu	Gly	Ser	Thr	Ser	Phe	Val	Arg	Arg	Ser	Gln	Trp
			115				120					125			
Met	Leu	Glu	Gln	Leu	Arg	Gln	Val	Asn	Gly	Ile	Asp	Pro	Asn	Gly	Asp
						135					140				
Ser	Ala	Glu	Phe	Asp	Leu	Leu	Phe	Glu	Asn	Ala	Phe	Asp	Gln	Trp	Val
					150					155				160	
Ala	Ser	Thr	Ala	Ser	Glu	Lys	Cys	Thr	Phe	Phe	Gln	Ile	Leu	His	His
				165					170					175	
Thr	Cys	Gln	Arg	Tyr	Leu	Thr	Asp	Arg	Lys	Pro	Glu	Phe	Ile	Asn	Cys
			180					185					190		
Gln	Ser	Lys	Ile	Met	Gly	Gly	Asn	Ser	Ile	Leu	His	Ser	Ala	Ala	Asp
			195				200					205			
Ser	Val	Thr	Ser	Ala	Val	Gln	Lys	Ala	Ser	Gln	Ala	Leu	Asn	Glu	Arg
			210				215				220				
Gly	Glu	Arg	Leu	Gly	Arg	Ala	Glu	Glu	Lys	Thr	Glu	Asp	Leu	Lys	Asn
					230					235				240	
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<210> 4099
 <211> 511
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 511

<210> 4100
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4100
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 20 25 30
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 35 40 45
 Leu Arg Lys Glu Lys Val His Val Ser Lys Ser Gly Gly Ser Gln Ala
 50 55 60
 Gln Ala Thr Gly Val Ile Ser Cys Val Ala Ser Arg Ile Cys Leu Ile
 65 70 75 80
 Pro Pro Ala Ser Asn Phe Asp Asp Thr Cys Ala Met Leu Ser Thr Leu
 85 90 95
 Pro Glu Phe His
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<210> 4101
 <211> 536
 <212> DNA
 <213> Homo sapiens

<400> 4101

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 360
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 420
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<210> 4102

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4102

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			20					25					30		
Asp	Asp	Arg	Lys	Asp	Thr	Cys	Ser	Pro	Pro	Phe	Pro	Gly	Pro	Arg	His
		35					40					45			
Val	Gln	Asn	Ser	Ser	Trp	Gly	Leu	Gln	Leu	Leu	Gly	Glu	Thr	Gln	Gly
	50					55					60				
Leu	Leu	Leu	His	Ser	Leu	Gln	Gly	Leu	Ser	Arg	Gln	Arg	Pro	Trp	Gly
65					70					75				80	
Gly	Glu	Ala	Pro	Ala	Trp	Ser	Leu	Pro	Ala	Pro	Pro	Met	Gln	Ala	Val
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<210> 4103

<211> 3040

<212> DNA

<213> Homo sapiens

<400> 4103

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<210> 4104

<211> 978

<212> PRT

<213> Homo sapiens

<400> 4104

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		20					25					30			
Gln	Glu	Ser	Val	Asp	Thr	Gly	Glu	Glu	Glu	Gly	Gly	Asp	Glu	Ser	
		35				40				45					
Asp	Leu	Ser	Ser	Glu	Ser	Ser	Ile	Lys	Lys	Lys	Ser	Gln	Glu	Glu	Arg
	50					55				60					
Lys	Asp	Arg	Gln	Ser	Leu	Asp	Lys	Pro	Ala	Arg	Lys	Arg	Arg	Arg	Arg

65					70					75					80
Ser	Arg	Lys	Lys	Pro	Ser	Gly	Ala	Leu	Gly	Ser	Glu	Ser	Tyr	Lys	Ser
				85					90					95	
Ser	Ala	Gly	Ser	Ala	Glu	Gln	Thr	Ala	Pro	Gly	Asp	Ser	Thr	Gly	Tyr
			100					105					110		
Met	Glu	Val	Ser	Leu	Asp	Ser	Leu	Asp	Leu	Arg	Val	Lys	Gly	Ile	Leu
		115					120					125			
Ser	Ser	Gln	Ala	Glu	Gly	Leu	Ala	Asn	Gly	Pro	Asp	Val	Leu	Glu	Thr
	130					135					140				
Asp	Gly	Leu	Gln	Glu	Val	Pro	Leu	Cys	Ser	Cys	Arg	Met	Glu	Thr	Pro
145				150						155					160
Lys	Ser	Arg	Glu	Ile	Thr	Thr	Leu	Ala	Asn	Asn	Gln	Cys	Met	Ala	Thr
			165						170					175	
Glu	Ser	Val	Asp	His	Glu	Leu	Gly	Arg	Cys	Thr	Asn	Ser	Val	Val	Lys
		180					185						190		
Tyr	Glu	Leu	Met	Arg	Pro	Ser	Asn	Lys	Ala	Pro	Leu	Leu	Val	Leu	Cys
	195						200					205			
Glu	Asp	His	Arg	Gly	Arg	Met	Val	Lys	His	Gln	Cys	Cys	Pro	Gly	Cys
	210					215					220				
Gly	Tyr	Phe	Cys	Thr	Ala	Gly	Asn	Phe	Met	Glu	Cys	Gln	Pro	Glu	Ser
225				230						235					240
Ser	Ile	Ser	His	Arg	Phe	His	Lys	Asp	Cys	Ala	Ser	Arg	Val	Asn	Asn
			245						250					255	
Ala	Ser	Tyr	Cys	Pro	His	Cys	Gly	Glu	Glu	Ser	Ser	Lys	Ala	Lys	Glu
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Val	Gln	Pro	Pro	Thr	Xaa	Pro	Glu	Gly	Phe	Asp	Pro	Thr	Gly	Pro	Ala
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Gly	Leu	Gly	Arg	Pro	Thr	Pro	Gly	Leu	Ser	Gln	Gly	Pro	Gly	Lys	Glu
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Thr	Leu	Glu	Ser	Ala	Leu	Ile	Ala	Leu	Asp	Ser	Glu	Lys	Pro	Lys	Lys
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Leu	Arg	Phe	His	Pro	Lys	Gln	Leu	Tyr	Phe	Ser	Ala	Arg	Gln	Gly	Glu
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Lys	Met	Glu	His	Gln	Asn	Lys	Arg	Ser	Pro	Leu	His	Ala	Ala	Ala	Glu
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Glu	Asn	Asn	His	Leu	Glu	Ala	Val	Lys	Tyr	Leu	Ile	Lys	Ala	Gly	Ala
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3289

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Trp Glu Val Arg Tyr Glu Pro Asp Ser Lys Ala Phe Gly Val Gly Val

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 Gly Val His Cys Asp Phe His Gln Gly Leu Leu Ser Phe Tyr Asn Ala
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 Arg Thr Lys Gln Val Leu His Thr Phe Lys Thr Arg Phe Thr Gln Pro
 130 135 140
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<211> 1442

<212> DNA

<213> Homo sapiens

<400> 4107

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<212> PRT

<213> Homo sapiens

<400> 4108

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	50					55					60				
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	65				70					75				80	
Gly	Tyr	Ala	Val	Tyr	Glu	Thr	Pro	Thr	Ala	His	Asn	Gly	Ala	Lys	Asn
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Lys	Val	Glu	Asp	Lys	Trp	Tyr	Ser	Leu	Ser	Gly	Arg	Gln	Gly	Asp	Asp
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Lys	Glu	Gly	Met	Ile	Asn	Leu	Val	Met	Ser	Tyr	Ala	Leu	Leu	Pro	Ala
		165						170						175	
Ala	Met	Val	Met	Pro	Pro	Gln	Pro	Val	Val	Leu	Met	Pro	Thr	Val	Tyr
		180						185					190		
Gln	Gln	Gly	Val	Gly	Tyr	Val	Pro	Ile	Thr	Gly	Met	Pro	Ala	Val	Cys
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Ser	Pro	Gly	Met	Val	Pro	Val	Ala	Leu	Pro	Pro	Ala	Ala	Val	Asn	Ala

210	215	220	
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<211> 1637

<212> DNA

<213> Homo sapiens

<400> 4109

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<212> PRT

<213> Homo sapiens

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Pro	Ile	Phe	Ser	Leu	Ala	Thr	Pro	Leu	Arg	Ala	Gly	Glu	Glu	Gly	Ser
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His	Ser	Arg	Lys	Ser	Leu	Cys	Arg	Ser	Arg	Glu	Glu	Leu	Arg	Gly	Lys
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Val	Arg	Glu	Leu	Ala	Ser	Ala	Val	Arg	Asn	Ala	Lys	Tyr	Leu	Val	Val
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Tyr	Thr	Gly	Ala	Gly	Ile	Ser	Thr	Ala	Ala	Ser	Ile	Pro	Asp	Tyr	Arg
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Asn	Arg	Glu	Tyr	Val	Arg	Val	Phe	Asp	Val	Thr	Glu	Arg	Thr	Ala	Leu
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<210> 4112
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 Val Gly Val Ile Val Thr Pro Glu Gln Ile Glu Glu Ala Val Glu Ala
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 180 185 190
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 260 265 270
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 Asn Thr Leu Pro Ser Pro Trp Arg Asp Arg Pro Met Glu Glu Ser Leu
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<213> Homo sapiens

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<210> 4114

<211> 389

<212> PRT

<213> Homo sapiens

<400> 4114

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			20					25					30		
Lys	Ala	Leu	Cys	Thr	Ala	His	Glu	Lys	Phe	Cys	Phe	Trp	Pro	Asp	Ser
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Pro	Ser	Pro	Asp	Arg	Phe	Gly	Met	Leu	Pro	Leu	Asp	Glu	Pro	Ala	Ile
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Leu	Val	Ser	Glu	Phe	Leu	Asp	Arg	Phe	Gln	Ser	Leu	Cys	His	Leu	Asp
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Leu	Gln	Leu	Pro	Ser	Leu	Arg	Pro	Glu	Asp	Leu	Lys	Thr	Met	Cys	Leu
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Thr	Glu	Asp	Lys	Ile	Ser	Leu	Leu	Leu	His	Leu	Leu	Glu	Asp	Glu	Leu
			100					105						110	
Asp	His	Arg	Thr	Asp	Glu	Arg	Lys	Thr	Thr	Ile	Lys	Leu	Gly	Ser	Asp
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Ile	Gln	Val	His	Val	Thr	Ala	Cys	Ile	Leu	Ser	Val	Cys	Gly	Trp	Ala
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Cys	Ser	Ser	Ser	Leu	Glu	Ser	Met	Gln	Leu	Ser	Leu	Ile	Ala	Cys	Ser
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			165					170						175	
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			180					185						190	
Pro	Gly	Leu	Glu	Gly	Arg	Pro	Glu	Arg	Leu	Pro	Leu	Val	Pro	Glu	Ser
	195						200					205			
Pro	Arg	Arg	Met	Met	Thr	Arg	Ser	Gln	Asp	Ala	Thr	Phe	Ser	Pro	Gly

210 215 220
 Ser Glu Gln Ala Glu Lys Ser Pro Gly Pro Ile Val Ser Arg Thr Arg
 225 230 235 240
 Ser Trp Asp Ser Ser Pro Val Asp Arg Pro Glu Pro Glu Ala Ala
 245 250 255
 Ser Pro Thr Thr Arg Thr Arg Pro Val Thr Arg Ser Met Gly Thr Gly
 260 265 270
 Asp Thr Pro Gly Leu Glu Val Pro Ser Ser Xaa Ser Ala Glu Ser Gln
 275 280 285
 Ala Ser Ser Leu Cys Ser Ser Ser Ser Ser Asp Thr Ser Ser Arg Ser
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 Phe Phe Asp Pro Thr Ser Gln His Arg Asp Trp Cys Pro Trp Val Asn
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 Ile Thr Leu Gly Lys Glu Ser Arg Glu Asn Gly Gly Thr Glu Pro Asp
 325 330 335
 Ala Ser Ala Pro Ala Glu Pro Gly Trp Lys Ala Val Leu Thr Ile Leu
 340 345 350
 Leu Ala His Lys Gln Ser Ser Gln Pro Ala Glu Thr Asp Ser Met Ser
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 Ser Leu Cys Ser Cys
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<210> 4115

<211> 1056

<212> DNA

<213> Homo sapiens

<400> 4115

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 180
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 420
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<210> 4116
 <211> 151
 <212> PRT
 <213> Homo sapiens

<400> 4116
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 Asn His Ser Asp Ser Leu Ser Arg Ser Asp Arg Ile Asp Ala Val Thr
 35 40 45
 Pro Thr Leu Gly Ser Ser Asn Asn Gln Leu Asn Ser Ser Leu Leu Gln
 50 55 60
 Val Tyr Ile Pro Asp Tyr Ser Val Arg Ala Leu Ser Asp Leu Gln Phe
 65 70 75 80
 Val Lys Ile Ser Arg Gln Gln Tyr Gln Asn Ala Leu Met Ala Ser Arg
 85 90 95
 Met Asp Lys Thr Pro Gln Ser Ser Asp Ser Glu Asn Thr Lys Ile Glu
 100 105 110
 Leu Thr Leu Thr Glu Leu His Asp Gly Leu Pro Asp Glu Thr Ala Asn
 115 120 125
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 130 135 140
 Leu His Asn Glu Gly Ala Ile
 145 150

<210> 4117
 <211> 973
 <212> DNA
 <213> Homo sapiens

<400> 4117
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 240

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 360
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 840
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<210> 4118

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4118

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His	Leu	Gly	Pro	Gln	Ala	Gln	Pro	Ala	Val	Gln	Ala	His	Asp	Trp	Pro
		20					25						30		
Gly	Cys	Gly	Arg	Trp	Pro	Gln	Pro	Pro	Gly	Gly	Ile	Leu	Glu	Trp	Glu
		35				40						45			
Arg	Cys	Val	Gly	Cys	Pro	Arg	Pro	Ala	Arg	Pro	Ala	Ser	Pro	Ser	Pro
		50				55					60				
Gly	Glu	Ala	Thr	Pro	Pro	Pro	Ser	Ser	Gly	Ile	Ser	Ala	Val	Lys	Pro
65				70					75					80	
Pro	Leu	Arg	Ser	Pro	Arg	Thr	Leu	Pro	Leu	Glu	Leu	Gly	Thr	Gly	Gly
			85					90						95	
Cys	Val	Cys	Ala	Gly	Leu	Gly	Pro	Asn	Thr	Pro	Gly	Cys	Gln	Leu	His
			100				105						110		
Pro	Pro	Ala	Val	Leu	Cys	Pro	Gln	Gly	Leu	Gly	Arg	His	Gln	Arg	Leu
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<210> 4119

<211> 649

<212> DNA

<213> Homo sapiens

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 480
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 540
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 649

<210> 4120
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 4120
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 20 25 30
 Cys Ile Leu Val Ser Ile Val Thr Glu Phe Val Ser Asn Pro Ala Thr
 35 40 45
 Ile Thr Ile Phe Leu Pro Ile Leu Cys Ser Leu Val Ser Asn Ala Glu
 50 55 60
 Leu Pro Asp Ile Gln Thr Gly Cys Pro Arg Gly Leu Glu Trp Gln Ala
 65 70 75 80
 Trp Leu Arg Ala Ala Ser Val Ala Val Gly Ser Pro Leu Val Thr Ala
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 His Ser Leu His
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<210> 4121
 <211> 2490
 <212> DNA
 <213> Homo sapiens

<400> 4121
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180
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540
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<210> 4122
 <211> 494
 <212> PRT
 <213> Homo sapiens

<400> 4122
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 20 25 30
 Arg Ala Val Ser Ala Cys Gln Glu Ile Gln Ala Ile Phe Thr Gln Lys
 35 40 45
 Ser Lys Pro Gly Pro Asp Pro Leu Asp Thr Arg Arg Leu Gln Gly Phe
 50 55 60
 Arg Leu Glu Glu Tyr Leu Ile Gly Gln Ser Ile Gly Lys Gly Cys Ser
 65 70 75 80
 Ala Ala Val Tyr Glu Ala Thr Met Pro Thr Leu Pro Gln Asn Leu Glu
 85 90 95
 Val Thr Lys Ser Thr Gly Leu Leu Pro Gly Arg Gly Pro Gly Thr Ser
 100 105 110
 Ala Pro Gly Glu Gly Gln Glu Arg Ala Pro Gly Ala Pro Ala Phe Pro
 115 120 125
 Leu Ala Ile Lys Met Met Trp Asn Ile Ser Ala Gly Ser Ser Ser Glu
 130 135 140
 Ala Ile Leu Asn Thr Met Ser Gln Glu Leu Val Pro Ala Ser Arg Val

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145          150          155          160
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Gly Pro Lys Gln Leu Ala Pro His Pro Asn Ile Ile Arg Val Leu Arg
          180          185          190
Ala Phe Thr Ser Ser Val Pro Leu Leu Pro Gly Ala Leu Val Asp Tyr
          195          200          205
Pro Asp Val Leu Pro Ser Arg Leu His Pro Glu Gly Leu Gly His Gly
          210          215          220
Arg Thr Leu Phe Leu Val Met Lys Asn Tyr Pro Cys Thr Leu Arg Gln
225          230          235          240
Tyr Leu Cys Val Asn Thr Pro Ser Pro Arg Leu Ala Ala Met Met Leu
          245          250          255
Leu Gln Leu Leu Glu Gly Val Asp His Leu Val Gln Gln Gly Ile Ala
          260          265          270
His Arg Asp Leu Lys Ser Asp Asn Ile Leu Val Glu Leu Asp Pro Asp
          275          280          285
Gly Cys Pro Trp Leu Val Ile Ala Asp Phe Gly Cys Cys Leu Ala Asp
          290          295          300
Glu Ser Ile Gly Leu Gln Leu Pro Phe Ser Ser Trp Tyr Val Asp Arg
305          310          315          320
Gly Gly Asn Gly Cys Leu Met Ala Pro Glu Val Ser Thr Ala Arg Pro
          325          330          335
Gly Pro Arg Ala Val Ile Asp Tyr Ser Lys Ala Asp Ala Trp Ala Val
          340          345          350
Gly Ala Ile Ala Tyr Glu Ile Phe Gly Leu Val Asn Pro Phe Tyr Gly
          355          360          365
Gln Gly Lys Ala His Leu Glu Ser Arg Ser Tyr Gln Glu Ala Gln Leu
          370          375          380
Pro Ala Leu Pro Glu Ser Val Pro Pro Asp Val Arg Gln Leu Val Arg
385          390          395          400
Ala Leu Leu Gln Arg Glu Ala Ser Lys Arg Pro Ser Ala Arg Val Ala
          405          410          415
Ala Asn Val Leu His Leu Ser Leu Trp Gly Glu His Ile Leu Ala Leu
          420          425          430
Lys Asn Leu Lys Leu Asp Lys Met Val Gly Trp Leu Leu Gln Gln Ser
          435          440          445
Ala Ala Thr Leu Leu Ala Asn Arg Leu Thr Glu Lys Cys Cys Val Glu
          450          455          460
Thr Lys Met Lys Met Leu Phe Leu Ala Asn Leu Glu Cys Glu Thr Leu
465          470          475          480
Cys Gln Ala Ala Leu Leu Leu Cys Ser Trp Arg Ala Ala Leu
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<210> 4123

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 4123

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 780
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 960
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<210> 4124

<211> 155

<212> PRT

<213> Homo sapiens

<400> 4124

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Glu	Glu	Leu	Leu	Ser	Leu	Arg	Phe	Pro	Leu	His	Arg	Ala	Cys	Arg	Asp
			20					25					30		
Gly	Asp	Leu	Ala	Thr	Leu	Cys	Ser	Leu	Leu	Gln	Gln	Thr	Pro	His	Ala
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<211> 4711

<212> DNA

<213> Homo sapiens

<400> 4125

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<211> 820

<212> PRT

<213> Homo sapiens

<400> 4126

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Arg	Lys	Leu	Arg	Met	Lys	Leu	Leu	Trp	Gln	Ala	Lys	Met	Ser	Ser	Ile
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Leu	Gly	Val	Glu	Gly	Asp	Gln	Leu	Pro	Pro	Gly	His	Thr	Val	Ser	Gln
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Tyr	Glu	Thr	Cys	Lys	Ile	Arg	Thr	Ile	Lys	Ala	Gly	Thr	Leu	Glu	Lys
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Ile	Ser	Ile	Phe	Leu	Ser	Thr	Tyr	Arg	Gly	Phe	Ala	Ser	Thr	Lys	Glu
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Val	Leu	Glu	Leu	Leu	Leu	Asp	Arg	Tyr	Gly	Asn	Leu	Thr	Ser	Pro	Asn
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Cys	Glu	Glu	Asp	Gly	Ser	Gln	Ser	Ser	Ser	Glu	Ser	Lys	Met	Val	Ile
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<210> 4127

<211> 2189

<212> DNA

<213> Homo sapiens

<400> 4127

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<210> 4128

<211> 445

<212> PRT

<213> Homo sapiens

<400> 4128

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<210> 4129

<211> 1749

<212> DNA

<213> Homo sapiens

<400> 4129

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1560

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<210> 4130

<211> 523

<212> PRT

<213> Homo sapiens

<400> 4130

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			20					25					30		
Val	Val	Asp	Gln	Gly	Ala	Gly	Ala	Ser	Arg	Gly	Gly	Asn	Thr	Arg	Lys
		35				40						45			
Ser	Leu	Glu	Asp	Asn	Gly	Ser	Thr	Arg	Val	Thr	Pro	Ser	Val	Gln	Pro
	50					55					60				
His	Leu	Gln	Pro	Ile	Arg	Asn	Met	Ser	Val	Ser	Arg	Thr	Met	Glu	Asp
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Ser	Cys	Glu	Leu	Asp	Leu	Val	Tyr	Val	Thr	Glu	Arg	Ile	Ile	Ala	Val
			85						90					95	
Ser	Phe	Pro	Ser	Thr	Ala	Asn	Glu	Glu	Asn	Phe	Arg	Ser	Asn	Leu	Arg
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Glu	Val	Ala	Gln	Met	Leu	Lys	Ser	Lys	His	Gly	Gly	Asn	Tyr	Leu	Leu
		115					120					125			
Phe	Asn	Leu	Ser	Glu	Arg	Arg	Pro	Asp	Ile	Thr	Lys	Leu	His	Ala	Lys
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Val	Leu	Glu	Phe	Gly	Trp	Pro	Asp	Leu	His	Thr	Pro	Ala	Leu	Glu	Lys
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His	Asn	Val	Val	Val	Leu	His	Asn	Lys	Gly	Asn	Arg	Gly	Arg	Ile	Gly
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Val	Val	Ile	Ala	Ala	Tyr	Met	His	Tyr	Ser	Asn	Ile	Ser	Ala	Ser	Ala
		195					200				205				
Asp	Gln	Ala	Leu	Asp	Arg	Phe	Ala	Met	Lys	Arg	Phe	Tyr	Glu	Asp	Lys
	210					215					220				
Ile	Val	Pro	Ile	Gly	Gln	Pro	Ser	Gln	Arg	Arg	Tyr	Val	His	Tyr	Phe
225					230					235				240	
Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Lys	Met	Asn	Asn	Lys	Pro	Leu	Phe
			245						250					255	
Leu	His	His	Val	Ile	Met	His	Gly	Ile	Pro	Asn	Phe	Glu	Ser	Lys	Gly
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Gly	Cys	Arg	Pro	Phe	Leu	Arg	Ile	Tyr	Gln	Ala	Met	Gln	Pro	Val	Tyr
		275					280						285		
Thr	Ser	Gly	Ile	Tyr	Asn	Ile	Pro	Gly	Asp	Ser	Gln	Thr	Ser	Val	Cys
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<211> 608
<212> DNA
<213> Homo sapiens
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480
aggtcttggc caccagcccc gcggtgctcc ccgccccgc cagcccgccc cggcccttct
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<210> 4132
<211> 194
<212> PRT
<213> Homo sapiens

<400> 4132
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Val Leu Val Arg Asn Pro Gly His Lys Gly Leu Arg Pro Val Tyr Glu
35 40 45
Glu Leu Asp Ser Asp Ser Glu Asp Leu Asp Pro Asn Pro Glu Asp Leu
50 55 60
Asp Pro Val Ser Glu Asp Pro Glu Pro Asp Pro Glu Asp Leu Asn Thr
65 70 75 80
Val Pro Glu Asp Val Asp Pro Ser Tyr Glu Asp Leu Glu Pro Val Ser
85 90 95
Glu Asp Leu Asp Pro Asp Ala Glu Ala Pro Gly Ser Glu Pro Gln Asp
100 105 110
Pro Asp Pro Met Ser Ser Ser Phe Asp Leu Asp Pro Asp Val Ile Gly
115 120 125
Pro Val Pro Leu Ile Leu Asp Pro Asn Ser Asp Thr Leu Ser Pro Gly
130 135 140
Asp Pro Lys Val Asp Pro Xaa Ser Pro Leu Ala Ser Leu Arg Ala Pro
145 150 155 160
Arg Ser Trp Pro Pro Ala Pro Arg Cys Ser Pro Pro Pro Ala Arg
165 170 175
Pro Gly Pro Ser Pro Ala Arg Ile Ala Ala Lys Pro Ser Ala Ala
180 185 190
Pro Gly

<210> 4133
<211> 1646
<212> DNA
<213> Homo sapiens

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<211> 329

<212> PRT

<213> Homo sapiens

<400> 4134

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 Ser Glu Gly Glu Gly Glu Ala Ala Ser Ala Asp Asp Gly Ser Leu Asn
 50 55 60
 Thr Ser Gly Ala Gly Pro Lys Ser Trp Gln Val Pro Pro Pro Ala Pro
 65 70 75 80
 Glu Val Gln Ile Arg Thr Pro Arg Val Asn Cys Pro Glu Lys Val Ile
 85 90 95
 Ile Cys Leu Asp Leu Ser Glu Glu Met Ser Leu Pro Lys Leu Glu Ser
 100 105 110
 Phe Asn Gly Ser Lys Thr Asn Ala Leu Asn Val Ser Gln Lys Met Ile
 115 120 125
 Glu Met Phe Val Arg Thr Lys His Lys Ile Asp Lys Ser His Glu Phe
 130 135 140
 Ala Leu Val Val Val Asn Asp Asp Thr Ala Trp Leu Ser Gly Leu Thr
 145 150 155 160
 Ser Asp Pro Arg Glu Leu Cys Ser Cys Leu Tyr Asp Leu Glu Thr Ala
 165 170 175
 Ser Cys Ser Thr Phe Asn Leu Glu Gly Leu Phe Ser Leu Ile Gln Gln
 180 185 190
 Lys Thr Glu Leu Pro Val Thr Glu Asn Val Gln Thr Ile Pro Pro Pro
 195 200 205
 Tyr Val Val Arg Thr Ile Leu Val Tyr Ser Arg Pro Pro Cys Gln Pro
 210 215 220
 Gln Phe Ser Leu Thr Glu Pro Met Lys Lys Met Phe Gln Cys Pro Tyr
 225 230 235 240
 Phe Phe Phe Asp Val Val Tyr Ile His Asn Gly Thr Glu Glu Lys Glu
 245 250 255
 Glu Glu Met Ser Trp Lys Asp Met Phe Ala Phe Met Gly Ser Leu Asp
 260 265 270
 Thr Lys Gly Thr Ser Tyr Lys Tyr Glu Val Ala Leu Ala Gly Pro Ala
 275 280 285
 Leu Glu Leu His Asn Cys Met Ala Lys Leu Leu Ala His Pro Leu Gln
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<210> 4135

<211> 388

<212> DNA

<213> Homo sapiens

<400> 4135

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120

tctgccattg ctggaaaaac tgaccacagg ccggattgca gagctgctat ctcccagacta

180

catggatctt gaggacccac gaccaatctt tgactggatg cagatcatcc gcaaacgggc

240

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<210> 4136
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 35 40 45
 Leu Leu Ser Pro Asp Tyr Met Asp Leu Glu Asp Pro Arg Pro Ile Phe
 50 55 60
 Asp Trp Met Gln Ile Ile Arg Lys Arg Ala Val Val Tyr Val Gly Leu
 65 70 75 80
 Asp Ala Leu Ser Asp Thr Glu Val Ala Ala Val Gly Asn Ser Met
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<210> 4137
 <211> 2255
 <212> DNA
 <213> Homo sapiens

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 420
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<210> 4138

<211> 353

<212> PRT

<213> Homo sapiens

<400> 4138

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			20					25					30		
Asn	Val	Glu	Ala	Val	Asp	Pro	Arg	Gly	Arg	Thr	Leu	Leu	His	Leu	Ala
			35					40					45		
Val	Ser	Leu	Gly	His	Leu	Glu	Ser	Ala	Arg	Val	Leu	Leu	Arg	His	Lys
						55					60				
Ala	Asp	Val	Thr	Lys	Glu	Asn	Arg	Gln	Gly	Trp	Thr	Val	Leu	His	Glu
65					70					75					80
Ala	Val	Ser	Thr	Gly	Asp	Pro	Glu	Met	Val	Tyr	Thr	Val	Leu	Gln	His
				85					90					95	
Arg	Asp	Tyr	His	Asn	Thr	Ser	Met	Ala	Leu	Glu	Gly	Val	Pro	Glu	Leu
			100					105					110		
Leu	Gln	Lys	Ile	Leu	Glu	Ala	Pro	Asp	Phe	Tyr	Val	Gln	Met	Lys	Trp
		115						120				125			
Glu	Phe	Thr	Ser	Trp	Val	Pro	Leu	Val	Ser	Arg	Ile	Cys	Pro	Asn	Asp
					135						140				
Val	Cys	Arg	Ile	Trp	Lys	Ser	Gly	Ala	Lys	Leu	Arg	Val	Asp	Ile	Thr
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Leu	Leu	Gly	Phe	Glu	Asn	Met	Ser	Trp	Ile	Arg	Gly	Arg	Arg	Ser	Phe
				165					170					175	
Ile	Phe	Lys	Gly	Glu	Asp	Asn	Trp	Ala	Glu	Leu	Met	Glu	Val	Asn	His
			180					185					190		
Asp	Asp	Lys	Val	Val	Thr	Thr	Glu	Arg	Phe	Asp	Leu	Ser	Gln	Glu	Met
		195						200				205			
Glu	Arg	Leu	Thr	Leu	Asp	Leu	Met	Lys	Pro	Lys	Ser	Arg	Glu	Val	Glu
		210				215					220				
Arg	Arg	Leu	Thr	Ser	Pro	Val	Ile	Asn	Thr	Ser	Leu	Asp	Thr	Lys	Asn
225					230					235					240
Ile	Ala	Phe	Glu	Arg	Thr	Lys	Ser	Gly	Phe	Trp	Gly	Trp	Arg	Thr	Asp
				245					250					255	
Lys	Ala	Glu	Val	Val	Asn	Gly	Tyr	Glu	Ala	Lys	Val	Tyr	Thr	Val	Asn
			260					265					270		
Asn	Val	Asn	Val	Ile	Thr	Lys	Ile	Arg	Thr	Glu	His	Leu	Thr	Glu	Glu
		275					280					285			
Glu	Lys	Lys	Arg	Tyr	Lys	Ala	Asp	Arg	Asn	Pro	Leu	Glu	Ser	Leu	Leu
		290				295					300				
Gly	Thr	Val	Glu	His	Gln	Phe	Gly	Ala	Gln	Gly	Asp	Leu	Thr	Thr	Glu
305					310					315					320
Cys	Ala	Thr	Ala	Asn	Asn	Pro	Thr	Ala	Ile	Thr	Pro	Asp	Glu	Tyr	Phe
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 <211> 431
 <212> DNA
 <213> Homo sapiens
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 <212> PRT
 <213> Homo sapiens
 <400> 4140
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 Val Pro
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 <211> 1182
 <212> DNA
 <213> Homo sapiens
 <400> 4141
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 780
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			20					25				30			
Ser	Arg	Val	His	Ile	Tyr	His	His	Thr	Gly	Asn	Asn	Thr	Phe	Arg	Val
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Pro	Lys	Gly	Leu	Lys	Tyr	Asn	Gln	Ala	Thr	Gln	Thr	Phe	His	Gln	Trp
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Arg	Asp	Ala	Arg	Gln	Val	Tyr	Gly	Leu	Asn	Phe	Gly	Ser	Lys	Glu	Asp
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<212> PRT

<213> Homo sapiens

<400> 4144

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			20					25				30			
Gly	Asp	Glu	Glu	Glu	Phe	Phe	Glu	Ile	Arg	Thr	Glu	Trp	Ser	Asp	Arg
		35					40				45				
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Glu Thr Arg Leu Asn Glu Val Glu Lys Leu Leu Lys Thr Ile Ile Ser
      100             105             110
Met Pro Cys Lys Tyr Ser Arg Ser Glu Val Val Leu Thr Phe Phe Glu
      115             120             125
Arg Ser Pro Leu Asp Gln Val Leu Lys Asn Asp Asn Val His Lys Ile
      130             135             140
Gln Pro Ser Phe Gln Ser Pro Val Lys Ile Ser Glu Ile Met Arg Ser
145             150             155             160
Asn Gly Phe Cys Leu Ala Asn Thr Glu Thr Ile Val Ile Asp His Ser
      165             170             175
Ile Pro Asn Gly Arg Asp Gln Gln Leu Gly Val Asp Pro Thr Glu His
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Leu Phe Glu Asn Gly Ser Glu Phe Pro Ser Glu Leu Glu Asp Gly Asp
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<212> DNA

<213> Homo sapiens

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 <212> PRT
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 Asp Ser Glu Ser Gly Thr Leu Ser Ala Ser Ser Ala Thr Ser Ala Arg
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 Gln Arg Arg Arg Gln Ser Lys Glu Gln Asp Glu Val Arg His Gly Arg
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<212> DNA

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<210> 4150
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 4150
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 His Ile Lys Arg Ile Thr Asp Asn Asp Ile Gln Ser Leu Val Leu Glu
 35 40 45
 Ile Glu Gly Thr Asn Val Ser Thr Thr Tyr Ile Thr Cys Pro Ala Asp
 50 55 60
 Pro Lys Lys Thr Leu Gly Ile Lys Leu Pro Phe Leu Val Met Ile Ile
 65 70 75 80
 Lys Asn Leu Lys Lys Tyr Phe Thr Phe Glu Val Gln Val Leu Asp Asp
 85 90 95
 Lys Asn Val Arg Arg Arg Phe Arg Ala Ser Asn Tyr Gln Ser Thr Thr
 100 105 110
 Arg Val Lys Pro Phe Ile Cys Thr Met Pro Met Arg Leu Asp Asp Gly
 115 120 125
 Trp Asn Gln Ile Gln Phe Asn Leu Leu Asp Phe Thr Arg Arg Ala Tyr
 130 135 140
 Gly Thr Asn Tyr Ile Glu Thr Leu Arg Val Gln Ile His Ala Asn Cys
 145 150 155 160
 Arg Ile Arg Arg Val Tyr Phe Ser Asp Arg Leu Tyr Ser Glu Asp Glu
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<210> 4151
 <211> 1372
 <212> DNA
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<210> 4152

<211> 97

<212> PRT

<213> Homo sapiens

<400> 4152

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		20					25						30		
Asn	Gly	Lys	Met	Ser	Pro	Thr	Arg	Phe	His	Ala	Asn	Ser	Met	Gly	Gln
		35					40					45			
Arg	Ser	Tyr	Ser	Phe	Glu	Ala	Ser	Glu	Glu	Asp	Leu	Asp	Val	Asn	Asp
	50					55					60				
Lys	Val	Glu	Glu	Leu	Met	Arg	Arg	Asp	Ser	Ser	Val	Ile	Lys	Glu	Glu
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Ile	Lys	Ala	Phe	Leu	Ala	Asn	Arg	Arg	Ile	Ser	Gln	Ala	Val	Asp	Thr
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<211> 1191
<212> DNA
<213> Homo sapiens

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<210> 4156
<211> 233
<212> PRT
<213> Homo sapiens

<400> 4156
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Asn Val Lys Asp Leu Arg Pro Arg Ala Arg Thr Ile Leu Lys Trp Asn			
35	40	45	
Glu Leu Asn Val Gly Asp Val Val Met Val Asn Tyr Asn Val Glu Ser			
50	55	60	
Pro Gly Gln Arg Gly Phe Trp Phe Asp Ala Glu Ile Thr Thr Leu Lys			
65	70	75	80
Thr Ile Ser Arg Thr Lys Lys Glu Leu Arg Val Lys Ile Phe Leu Gly			
85	90	95	
Gly Ser Glu Gly Thr Leu Asn Asp Cys Lys Ile Ile Ser Val Asp Glu			
100	105	110	
Ile Phe Lys Ile Glu Arg Pro Gly Ala His Pro Leu Ser Phe Ala Asp			
115	120	125	
Gly Lys Phe Leu Arg Arg Asn Asp Pro Glu Cys Asp Leu Cys Gly Gly			
130	135	140	
Asp Pro Glu Lys Lys Cys His Ser Cys Ser Cys Arg Val Cys Gly Gly			
145	150	155	160
Lys His Glu Pro Asn Met Gln Leu Leu Cys Asp Glu Cys Asn Val Ala			
165	170	175	
Tyr His Ile Tyr Cys Leu Asn Pro Pro Leu Asp Lys Val Pro Glu Glu			
180	185	190	
Glu Tyr Trp Tyr Cys Pro Ser Cys Lys Thr Asp Ser Ser Glu Val Val			
195	200	205	
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<210> 4157

<211> 3460

<212> DNA

<213> Homo sapiens

<400> 4157

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<210> 4158

<211> 463

<212> PRT

<213> Homo sapiens

<400> 4158

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 <211> 1491
 <212> DNA
 <213> Homo sapiens

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<210> 4160

<211> 360

<212> PRT

<213> Homo sapiens

<400> 4160

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			20					25					30		
Pro	Trp	Val	Asn	Asp	Gln	Asp	Val	Pro	Phe	Cys	Pro	Asp	Cys	Gly	Asn
		35				40						45			
Lys	Phe	Ser	Ile	Arg	Asn	Arg	Arg	His	His	Cys	Arg	Leu	Cys	Gly	Ser
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Ile	Met	Cys	Lys	Lys	Cys	Met	Glu	Leu	Ile	Ser	Leu	Pro	Leu	Ala	Asn
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Lys	Leu	Thr	Ser	Ala	Ser	Lys	Glu	Ser	Leu	Ser	Thr	His	Thr	Ser	Pro
			85					90						95	
Ser	Gln	Ser	Pro	Asn	Ser	Val	His	Gly	Ser	Arg	Arg	Gly	Ser	Ile	Ser
			100					105					110		
Ser	Met	Ser	Ser	Val	Ser	Ser	Val	Leu	Asp	Glu	Lys	Asp	Asp	Asp	Arg
	115						120					125			
Ile	Arg	Cys	Cys	Thr	His	Cys	Lys	Asp	Thr	Leu	Leu	Lys	Arg	Glu	Gln
	130					135					140				
Gln	Ile	Asp	Glu	Lys	Glu	His	Thr	Pro	Asp	Ile	Val	Lys	Leu	Tyr	Glu
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Lys	Leu	Arg	Leu	Cys	Met	Glu	Lys	Val	Asp	Gln	Lys	Ala	Pro	Glu	Tyr
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Ile	Arg	Met	Ala	Ala	Ser	Leu	Asn	Ala	Gly	Glu	Thr	Thr	Tyr	Ser	Leu
		180						185					190		
Glu	His	Ala	Ser	Asp	Leu	Arg	Val	Glu	Val	Gln	Lys	Val	Tyr	Glu	Leu
	195						200					205			
Ile	Asp	Ala	Leu	Ser	Lys	Lys	Ile	Leu	Thr	Leu	Gly	Leu	Asn	Gln	Asp
	210					215						220			
Pro	Pro	Pro	His	Pro	Ser	Asn	Leu	Arg	Leu	Gln	Arg	Met	Ile	Arg	Tyr
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Ser	Ala	Thr	Leu	Phe	Val	Gln	Glu	Lys	Leu	Leu	Gly	Leu	Met	Ser	Leu
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Pro	Thr	Lys	Glu	Gln	Phe	Glu	Glu	Leu	Lys	Lys	Lys	Arg	Lys	Glu	Glu
			260					265					270		
Met	Glu	Arg	Lys	Arg	Ala	Val	Glu	Arg	Gln	Ala	Ala	Leu	Glu	Ser	Gln
	275						280					285			
Arg	Arg	Leu	Glu	Glu	Arg	Gln	Ser	Gly	Leu	Ala	Ser	Arg	Ala	Ala	Asn
	290					295					300				
Gly	Glu	Val	Ala	Ser	Leu	Arg	Arg	Gly	Pro	Ala	Pro	Leu	Lys	Lys	Ala
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Glu	Gly	Trp	Leu	Pro	Leu	Ser	Gly	Gly	Gln	Gly	Gln	Ser	Glu	Asp	Ser
			325					330					335		
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<210> 4161
<211> 3316
<212> DNA
<213> Homo sapiens

<400> 4161
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<210> 4162

<211> 859

<212> PRT

<213> Homo sapiens

<400> 4162

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3350

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Pro Ala Arg His Gln Leu Thr Ser Ala Leu Ser Arg Met Thr Gln Gly				720
	725		730	735
Leu Arg Trp Val Arg Phe Thr Leu Gly Arg Ser Ser Ser Leu Ser Gln				
	740		745	750
Asn Gln Ser Pro Leu Arg Gln Leu Asp Asn Gly Val Ser Gly Arg Glu				
	755		760	765
Asp Asp Asp Asp Val Glu Met Leu Ile Pro Ile Ser Asp Gly Ser Ser				
	770		775	780
Asp Phe Asp Val Asn Asp Cys Ser Arg Pro Leu Leu Asp Leu Ala Ser				
	785		790	795
Asp Gln Gly Gln Gly Leu Arg Gln Pro Tyr Asn Ala Thr Asn Pro Gly				800
	805		810	815
Val Arg Pro Ser Asn Arg Asp Gly Pro Cys Glu Arg Cys Gly Ile Val				
	820		825	830
His Thr Ala Gln Ile Pro Asp Thr Cys Leu Glu Val Thr Leu Lys Asn				
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<210> 4163

<211> 568

<212> DNA

<213> Homo sapiens

<400> 4163

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<210> 4164

<211> 187

<212> PRT

<213> Homo sapiens

<400> 4164

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 35 40 45
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 Trp Gly Met Lys Gly Ile Pro Val Pro Ser Gly His Pro Gln Ala Asp
 65 70 75 80
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 85 90 95
 Thr Glu Ala Ser Pro Arg Cys Pro Ala Gly Pro Ser Pro Leu Arg Ser
 100 105 110
 Thr Gly Arg Lys Pro Pro Gly Pro Pro Arg Gly Gly Asp Leu Ala Ala
 115 120 125
 Pro Val Leu Phe Lys Ala Trp Ala Thr Ser Leu Ala Cys Pro Lys Trp
 130 135 140
 Gln Ala Leu Arg Arg Ala Arg Met Val Pro Val Val Gln Gly Ser Pro
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 Pro Ala Trp Ala Ala Pro Val Pro Trp Asn Leu Leu Pro Trp Gly Pro
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<210> 4165

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4165

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<210> 4166

<211> 166

<212> PRT

<213> Homo sapiens

<400> 4166

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		20						25					30		
Arg	Arg	Thr	Gly	Gln	Tyr	Lys	Gly	Leu	Leu	Asp	Cys	Ala	Arg	Arg	Ile
		35					40					45			
Leu	Glu	Arg	Glu	Gly	Pro	Arg	Ala	Phe	Tyr	Arg	Gly	Tyr	Leu	Pro	Asn
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Thr	Leu	Lys	Asn	Trp	Trp	Leu	Gln	Gln	Tyr	Ser	His	Asp	Ser	Ala	Asp
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Pro	Gly	Ile	Leu	Val	Leu	Leu	Ala	Cys	Gly	Thr	Ile	Ser	Ser	Thr	Cys
		100						105					110		
Gly	Gln	Ile	Ala	Ser	Tyr	Pro	Leu	Ala	Leu	Val	Arg	Thr	Arg	Met	Gln
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Ala	Gln	Gly	Phe	His	His	Val	Ala	Gln	Ala	His	Leu	Glu	Leu	Val	Gly
	130					135					140				
Ser	Arg	Asn	Ser	Pro	Ala	Phe	Ser	Leu	Pro	Thr	Cys	Trp	Asp	Tyr	Arg
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<210> 4167

<211> 897

<212> DNA

<213> Homo sapiens

<400> 4167

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<212> PRT

<213> Homo sapiens

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Gln	Thr	Ala	Gly	Val	Gln	Trp	Arg	Asp	Leu	Ser	Pro	Pro	Gln	Leu	Pro
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Gly	Leu	Asp	Asp	Thr	Val	Ser	Ile	Ala	Ser	Arg	Ser	Arg	Glu	Val	Ser
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Tyr	Arg	Asp	Pro	Arg	Glu	Arg	Thr	Leu	Gln	His	Gly	Leu	Tyr	Tyr	Ala
	210					215					220				
Ser	Arg	Ser	Arg	Ser	Pro	Asn	Arg	Phe	Asp	Ala	His	Asp	Pro	Arg	Tyr
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Glu	Pro	Arg	Ala	Arg	Glu	Gln	Phe	Thr	Leu	Pro	Ser	Val	Val	His	Arg
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<210> 4169

<211> 4743

<212> DNA

<213> Homo sapiens

<400> 4169

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<210> 4170

<211> 900

<212> PRT

<213> Homo sapiens

<400> 4170

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Ala	His	Leu	Arg	Ser	His	Gly	Leu	Glu	Pro	Ala	Ala	Pro	Ser	Pro	Arg
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Leu	Arg	Pro	Glu	Glu	Ser	Leu	Asp	Pro	Pro	Gly	Ala	Met	Gln	Glu	Leu
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Leu	Gly	Ala	Leu	Glu	Pro	Leu	Pro	Pro	Ala	Pro	Gly	Asp	Thr	Gly	Val
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Pro	Ser	Pro	Gln	Gly	Thr	Lys	Ala	Pro	Arg	Phe	Val	Pro	Leu	Thr	Ser
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Ile	Cys	Phe	Pro	Asp	Ser	Leu	Leu	Gln	Asp	Glu	Glu	Arg	Ser	Phe	Phe
	115					120				125					
Pro	Thr	Met	Glu	Glu	Met	Phe	Gly	Gly	Gly	Ala	Ala	Asp	Asp	Tyr	Gly
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Gly	Arg	Ala	Ser	Gly	Ala	Gly	Pro	Glu	Thr	Pro	Gly	Leu	Gly	Leu	Asp
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Pro	Asn	Lys	Pro	Pro	Glu	Leu	Pro	Ser	Thr	Val	Asn	Ala	Glu	Pro	Leu
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Gly	Leu	Ile	Gln	Ser	Gly	Pro	His	Gln	Ala	Ala	Pro	Pro	Pro	Pro	Pro
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Pro	Pro	Pro	Pro	Pro	Pro	Ala	Pro	Ala	Ser	Glu	Pro	Lys	Gly	Gly	Leu
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Thr	Ser	Pro	Ile	Phe	Cys	Ser	Thr	Lys	Pro	Lys	Lys	Leu	Leu	Lys	Thr
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Ser	Ser	Phe	His	Leu	Leu	Arg	Arg	Arg	Asp	Pro	Pro	Phe	Gln	Thr	Pro
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Lys	Lys	Leu	Tyr	Ala	Gln	Glu	Tyr	Glu	Phe	Glu	Ala	Asp	Glu	Asp	Lys
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Ala	Asp	Val	Pro	Ala	Asp	Ile	Arg	Leu	Asn	Pro	Arg	Arg	Leu	Pro	Asp

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 Ile Asp Phe Cys Leu Pro Asn Pro Gly Pro Asp Gly Pro Arg Arg Arg
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 340 345 350
 Gly Arg Pro Arg Ile Arg Pro Leu Glu Val Pro Thr Thr Ala Gly Pro
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 Ala Ser Ala Ser Thr Pro Thr Asp Gly Ala Lys Lys Pro Arg Gly Arg
 370 375 380
 Gly Arg Gly Arg Gly Arg Lys Ala Glu Glu Ala Gly Gly Thr Arg Leu
 385 390 395 400
 Glu Pro Leu Lys Pro Leu Lys Ile Lys Leu Ser Val Pro Lys Ala Gly
 405 410 415
 Glu Gly Leu Gly Thr Ser Ser Gly Asp Ala Ile Ser Gly Thr Asp His
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 Asn Ser Leu Asp Ser Ser Leu Thr Arg Glu Lys Ile Glu Ala Lys Ile
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 Lys Glu Val Glu Glu Lys Gln Pro Glu Met Lys Ser Gly Phe Met Ala
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 Ser Phe Leu Asp Phe Leu Lys Ser Gly Lys Arg His Pro Pro Leu Tyr
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 Gln Ala Gly Leu Thr Pro Pro Leu Ser Pro Pro Lys Ser Val Pro Pro
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 Ser Val Pro Ala Arg Gly Leu Gln Pro Gln Pro Pro Ala Thr Pro Ala
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 Val Pro His Pro Pro Pro Ser Gly Ala Phe Gly Leu Gly Gly Ala Leu
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 Glu Ala Ala Glu Ser Glu Gly Leu Gly Leu Gly Cys Pro Ser Pro Cys
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 Phe Ser Ser Asp Glu Glu Asp Ser Val Ala Lys Asn Arg Asp Leu Gln
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 Gly Pro Lys Asp Thr Ser Thr Pro Asp Gly Pro Pro Leu Ala Pro Ala
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 Thr Pro Ser Ser Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Pro
 675 680 685
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 690 695 700
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 Leu Pro Asp Thr Arg Pro Leu His Leu Ala Lys Lys Gln Glu Thr Ala

725 730 735
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 740 745 750
 Gly Ile Phe Arg Glu Arg Asp Glu Phe Val Ile Arg Ala Glu Asp Ile
 755 760 765
 Pro Ser Leu Lys Leu Ala Leu Gln Thr Gly Arg Glu Pro Pro Pro Ile
 770 775 780
 Trp Arg Val Gln Lys Ala Leu Leu Gln Lys Phe Thr Pro Glu Ile Lys
 785 790 795 800
 Asp Gly Gln Arg Gln Phe Cys Ala Thr Ser Asn Tyr Leu Gly Tyr Phe
 805 810 815
 Gly Asp Ala Lys Asn Arg Tyr Gln Arg Leu Tyr Val Lys Phe Leu Glu
 820 825 830
 Asn Val Asn Lys Lys Asp Tyr Val Arg Val Cys Ala Arg Lys Pro Trp
 835 840 845
 His Arg Pro Pro Val Pro Val Arg Arg Ser Gly Gln Ala Lys Asn Pro
 850 855 860
 Val Ser Ala Gly Gly Ser Ser Ala Pro Pro Pro Lys Ala Pro Ala Pro
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 Pro Pro Lys Pro Glu Thr Pro Glu Lys Thr Thr Ser Glu Lys Pro Pro
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 Ala Ala Asp Ser
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<210> 4171

<211> 889

<212> DNA

<213> Homo sapiens

<400> 4171

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<210> 4172
 <211> 184
 <212> PRT
 <213> Homo sapiens

<400> 4172
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 35 40 45
 Val Phe Ile Leu Pro Leu Asp Val Ser Thr Thr Ile Tyr Asn Arg Cys
 50 55 60
 Lys His Ala Ala Gln Ile Gln Ala Leu Leu Arg Ile Ala Thr Leu Gln
 65 70 75 80
 Asp Cys Ala Thr Ala Asn Pro Val Pro Ser Gln His Pro Cys Phe Lys
 85 90 95
 Pro Trp Ser Tyr Ile Pro Asp Gly Ile Met Pro Ile Phe Trp Arg Val
 100 105 110
 Val Tyr Trp Thr Ser Gln Phe Leu Thr Trp Ile Leu Leu Pro Phe Met
 115 120 125
 Gln Ser Tyr Ala Arg Ser Gly Gly Phe Ser Ile Thr Gly Lys Ile Lys
 130 135 140
 Thr Ala Leu Ile Glu Asn Ala Ile Tyr Tyr Gly Thr Tyr Leu Leu Ile
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 Phe Gly Ala Phe Leu Ile Tyr Val Ala Val Asn Pro His Leu His Leu
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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

<400> 4174
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 Gly Thr Pro Val Ser Lys Cys Ala Arg Ala Leu Gly Ser Ala Lys Gly
 35 40 45
 Pro Leu Leu Cys Cys Cys Val Gln Ala Trp His Leu Gln Asp Gly Asp
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 Ser Phe Leu Thr His Asp His Tyr Tyr Met Leu Asn Asp Leu Pro Asp
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<210> 4175
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 <212> DNA
 <213> Homo sapiens

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<210> 4176

<211> 586

<212> PRT

<213> Homo sapiens

<400> 4176

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			20					25					30		
Ala	Gly	Leu	Arg	Ala	Ala	Met	Gly	Pro	Gly	Ile	Ser	Arg	Met	Asn	Asp
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Leu	Thr	Ile	Ile	Gln	Thr	Thr	Gln	Gly	Phe	Cys	Arg	Tyr	Leu	Glu	Lys
	50				55					60					
Gln	Phe	Ser	Asp	Leu	Lys	Gln	Lys	Gly	Ile	Val	Ile	Ser	Phe	Asp	Ala
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Arg	Ala	His	Pro	Ser	Ser	Gly	Gly	Ser	Ser	Arg	Arg	Phe	Ala	Arg	Leu
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Ala	Ala	Thr	Thr	Phe	Ile	Ser	Gln	Gly	Ile	Pro	Val	Tyr	Leu	Phe	Ser
			100					105					110		
Asp	Ile	Thr	Pro	Thr	Pro	Phe	Val	Pro	Phe	Thr	Val	Ser	His	Leu	Lys
		115					120					125			
Leu	Cys	Ala	Gly	Ile	Met	Ile	Thr	Ala	Ser	His	Asn	Pro	Lys	Gln	Asp
		130				135					140				
Asn	Gly	Tyr	Lys	Val	Tyr	Trp	Asp	Asn	Gly	Ala	Gln	Ile	Ile	Ser	Pro
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His	Asp	Lys	Gly	Ile	Ser	Gln	Ala	Ile	Glu	Glu	Asn	Leu	Glu	Pro	Trp
				165					170					175	
Pro	Gln	Ala	Trp	Asp	Asp	Ser	Leu	Ile	Asp	Ser	Ser	Pro	Leu	Leu	His
			180					185					190		
Asn	Pro	Ser	Ala	Ser	Ile	Asn	Asn	Asp	Tyr	Phe	Glu	Asp	Leu	Lys	Lys
		195					200					205			
Tyr	Cys	Phe	His	Arg	Ser	Val	Asn	Arg	Glu	Thr	Lys	Val	Lys	Phe	Val
		210				215					220				
His	Thr	Ser	Val	His	Gly	Val	Gly	His	Ser	Phe	Val	Gln	Ser	Ala	Phe
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Lys	Ala	Phe	Xaa	Pro	Cys	Ser	Ser	Xaa	Glu	Ala	Val	Pro	Glu	Gln	Lys

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 Gly Lys Gly Val Leu Thr Leu Ser Phe Ala Leu Ala Asp Lys Thr Lys
 275 280 285
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 305 310 315 320
 Leu Gly Ala Leu Leu Gly Trp Trp Leu Phe Thr Ser Trp Lys Glu Lys
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 Asn Gln Asp Arg Ser Ala Leu Lys Asp Thr Tyr Met Leu Ser Ser Thr
 340 345 350
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 355 360 365
 Phe Glu Glu Thr Leu Thr Gly Phe Lys Trp Met Gly Asn Arg Ala Lys
 370 375 380
 Gln Leu Ile Asp Gln Gly Lys Thr Val Leu Phe Ala Phe Glu Glu Ala
 385 390 395 400
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 405 410 415
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 420 425 430
 Leu Ser Leu Ser Gln Gln Leu Lys Ala Ile Tyr Val Glu Tyr Gly Tyr
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 His Ile Thr Lys Ala Ser Tyr Phe Ile Cys His Asp Gln Glu Thr Ile
 450 455 460
 Lys Lys Leu Phe Glu Asn Leu Arg Asn Tyr Asp Gly Lys Asn Asn Tyr
 465 470 475 480
 Pro Lys Ala Cys Gly Lys Phe Glu Ile Ser Ala Ile Arg Asp Leu Thr
 485 490 495
 Thr Gly Tyr Asp Asp Ser Gln Pro Asp Lys Lys Ala Val Leu Pro Thr
 500 505 510
 Ser Lys Ser Ser Gln Met Ile Thr Phe Thr Phe Ala Asn Gly Gly Val
 515 520 525
 Ala Thr Met Arg Thr Ser Gly Thr Glu Pro Lys Ile Lys Tyr Tyr Ala
 530 535 540
 Glu Leu Cys Ala Pro Pro Gly Asn Ser Asp Pro Glu Gln Leu Lys Lys
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<210> 4177

<211> 4763

<212> DNA

<213> Homo sapiens

<400> 4177

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<210> 4178

<211> 398

<212> PRT

<213> Homo sapiens

<400> 4178

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 35 40 45
 Ser Arg Thr Asn Glu Asn Asp Pro Ala Lys His Gly Asp Gln His Glu
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 Gly Gln His Tyr Asn Ile Ser Pro Gln Asp Leu Glu Thr Val Phe Pro
 65 70 75 80
 His Gly Leu Pro Pro Arg Phe Val Met Gln Val Lys Thr Phe Ser Glu
 85 90 95
 Ala Cys Leu Met Val Arg Lys Pro Ala Leu Glu Leu Leu His Tyr Leu
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 Lys Asn Thr Ser Phe Ala Tyr Pro Ala Ile Arg Tyr Leu Leu Tyr Gly
 115 120 125
 Glu Lys Gly Thr Gly Lys Thr Leu Ser Leu Cys His Val Phe His Phe
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 Arg Phe Asp Gln Pro Leu Glu Ala Ser Thr Trp Leu Lys Asn Phe Lys
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 Val Trp Asn Lys Arg Glu Leu Thr Glu Lys Gly Ser Pro Leu Gly Glu
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 Thr Leu Lys Arg Glu Asp Lys Ser Pro Ile Ala Pro Glu Glu Leu Ala
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<210> 4179

<211> 2208

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 257

<212> PRT

<213> Homo sapiens

<400> 4180

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			20					25					30		
Thr	Asp	Cys	Val	Met	Ile	Ser	Thr	Arg	Leu	Val	Ser	Ser	Val	His	Ala
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Val	Leu	Ala	Thr	Gly	Ser	Gly	Ile	Val	Ile	Ile	Arg	Ser	Cys	Asp	Asp
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Ile	Pro	Tyr	Met	Ile	Tyr	Asp	Ser	Tyr	Ala	Met	Tyr	Leu	Cys	Glu	Trp
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Cys	Arg	Thr	Arg	Asp	Gln	Asn	Arg	Ala	Pro	Ser	Leu	Thr	Leu	Arg	Asn
			100					105					110		
Phe	Leu	Ser	Arg	Asn	Arg	Leu	Met	Ile	Thr	His	His	Ala	Val	Ile	Leu
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<212> DNA
<213> Homo sapiens
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<210> 4184

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4184

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Asp	Val	Pro	Pro	Asp	Ile	Leu	Leu	Asp	Ser	Pro	Glu	Arg	Lys	Gln	Lys
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Lys	Gln	Lys	Lys	Met	Lys	Leu	Gly	Lys	Asp	Glu	Lys	Glu	Gln	Ser	Glu
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Gln	Glu	Asp	Met	Leu	Ser	Gly	Met	Glu	Asn	Ser	Asn	Val	Ser	Glu	Asn
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305	310	315
Val Gln Asn Gln Gln Gln Ile Ser Gln Gln Gly Pro Ile Tyr Asp Glu		
	325	330
Val Glu Leu Asp Ala Leu Ala Glu Ile Glu Arg Ile Glu Arg Glu Ser		
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<210> 4185

<211> 1481

<212> DNA

<213> Homo sapiens

<400> 4185

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<210> 4186

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4186

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Gln	Glu	Ile	Met	Gln	Ser	Leu	Arg	Asp	Leu	Gly	Val	Lys	Ile	Ser	Glu
		20					25					30			
Gln	Gln	Ala	Glu	Lys	Ile	Leu	Lys	Ser	Met	Asp	Lys	Asn	Gly	Thr	Met
		35				40					45				
Thr	Ile	Asp	Trp	Asn	Glu	Trp	Arg	Asp	Tyr	His	Leu	Leu	His	Pro	Val
	50				55					60					
Glu	Asn	Ile	Pro	Glu	Ile	Ile	Leu	Tyr	Trp	Lys	His	Ser	Thr	Ile	Phe
65				70				75						80	
Asp	Val	Gly	Glu	Asn	Leu	Thr	Val	Pro	Asp	Glu	Phe	Thr	Val	Glu	Glu
			85				90						95		
Arg	Gln	Thr	Gly	Met	Trp	Trp	Arg	His	Leu	Val	Ala	Gly	Gly	Gly	Ala
		100					105						110		
Gly	Ala	Val	Ser	Arg	Thr	Cys	Thr	Ala	Pro	Leu	Asp	Arg	Leu	Lys	Val
		115				120					125				
Leu	Met	Gln	Val	His	Ala	Ser	Arg	Ser	Asn	Asn	Met	Gly	Ile	Val	Gly
	130				135						140				
Gly	Phe	Thr	Gln	Met	Ile	Arg	Glu	Gly	Gly	Ala	Arg	Ser	Leu	Trp	Arg
145				150					155					160	
Gly	Asn	Gly	Ile	Asn	Val	Leu	Lys	Ile	Ala	Pro	Glu	Ser	Ala	Ile	Lys
			165					170						175	
Phe	Met	Ala	Tyr	Glu	Gln	Ile	Lys	Arg	Leu	Val	Gly	Ser	Asp	Gln	Glu
		180					185						190		
Thr	Leu	Arg	Ile	His	Glu	Arg	Leu	Val	Ala	Gly	Ser	Leu	Ala	Gly	Ala
		195				200						205			
Ile	Ala	Gln	Ser	Ser	Ile	Tyr	Pro	Met	Glu	Val	Leu	Lys	Thr	Arg	Met
	210				215						220				
Ala	Leu	Arg	Lys	Thr	Gly	Gln	Tyr	Ser	Gly	Met	Leu	Asp	Cys	Ala	Arg
225				230					235					240	
Arg	Ile	Leu	Ala	Arg	Glu	Gly	Val	Ala	Ala	Phe	Tyr	Lys	Gly	Tyr	Val

245 250 255
 Pro Asn Met Leu Gly Ile Ile Pro Tyr Ala Gly Ile Asp Leu Ala Val
 260 265 270
 Tyr Glu Thr Leu Lys Asn Ala Trp Leu Gln His Tyr Ala Val Asn Ser
 275 280 285
 Ala Asp Pro Gly Val Phe Val Leu Leu Ala Cys Gly Thr Met Ser Ser
 290 295 300
 Thr Cys Gly Gln Leu Ala Ser Tyr Pro Leu Ala Leu Val Arg Thr Arg
 305 310 315 320
 Met Gln Ala Gln Ala Ser Ile Glu Gly Ala Pro Glu Val Thr Met Ser
 325 330 335
 Ser Leu Phe Lys His Ile Leu Arg Thr Glu Gly Ala Phe Gly Leu Tyr
 340 345 350
 Arg Gly Leu Ala Pro Asn Phe Met Lys Val Ile Pro Ala Val Ser Ile
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 Ser Tyr Val Val Tyr Glu Asn Leu Lys Ile Thr Leu Gly Val Gln Ser
 370 375 380
 Arg
 385

<210> 4187

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4187

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 240
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 300
 accaagcaat acctctatgt ggctgacctg gcacggaagg acaagcgtgt tctgcggaaa
 360
 aagtaccaga tctacttctg gaacattgcc accattgctg tcttctatgc ctttctgtg
 420
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 480
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 660
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 720
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 780
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 840

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 960
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<210> 4188

<211> 272

<212> PRT

<213> Homo sapiens

<400> 4188

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Pro	Arg	Val	Leu	Ala	Asp	Ser	Phe	Pro	Asp	Ser	Ser	Pro	Tyr	Glu	Gly
			20					25					30		
Tyr	Asn	Tyr	Gly	Ser	Phe	Glu	Asn	Val	Ser	Gly	Ser	Thr	Asp	Gly	Leu
		35					40					45			
Val	Asp	Ser	Ala	Gly	Thr	Gly	Asp	Leu	Ser	Tyr	Gly	Tyr	Gln	Gly	Arg
	50					55				60					
Ser	Phe	Glu	Pro	Val	Gly	Thr	Arg	Pro	Arg	Val	Asp	Ser	Met	Ser	Ser
65				70					75					80	
Val	Glu	Glu	Asp	Asp	Tyr	Asp	Thr	Leu	Thr	Asp	Ile	Asp	Ser	Asp	Lys
			85					90						95	
Asn	Val	Ile	Arg	Thr	Lys	Gln	Tyr	Leu	Tyr	Val	Ala	Asp	Leu	Ala	Arg
			100					105					110		
Lys	Asp	Lys	Arg	Val	Leu	Arg	Lys	Lys	Tyr	Gln	Ile	Tyr	Phe	Trp	Asn
		115					120					125			
Ile	Ala	Thr	Ile	Ala	Val	Phe	Tyr	Ala	Leu	Pro	Val	Val	Gln	Leu	Val
	130					135					140				
Ile	Thr	Tyr	Pro	Glu	Xaa	Gly	Gly	Cys	Thr	Arg	Gly	Ser	Arg	Asp	Ile
145				150					155					160	
Cys	Ser	Ser	Asn	Phe	Leu	Cys	Ala	His	Pro	Leu	Gly	Asn	Leu	Ser	Ala
			165					170					175		
Phe	Asn	Asn	Ile	Leu	Ser	Asn	Leu	Gly	Tyr	Ile	Leu	Leu	Gly	Leu	Leu
			180					185					190		
Phe	Leu	Leu	Ile	Ile	Leu	Gln	Arg	Glu	Ile	Asn	His	Asn	Arg	Ala	Leu
	195						200					205			
Leu	Arg	Asn	Asp	Leu	Cys	Ala	Leu	Glu	Cys	Gly	Ile	Pro	Lys	His	Phe
	210					215					220				
Gly	Leu	Phe	Tyr	Ala	Met	Gly	Thr	Ala	Leu	Met	Met	Glu	Gly	Leu	Leu
225				230					235					240	
Ser	Ala	Cys	Tyr	His	Val	Cys	Pro	Asn	Tyr	Thr	Asn	Phe	Gln	Phe	Gly
			245					250					255		
Glu	Trp	Gly	Val	Leu	Leu	Phe	Trp	Leu	Asn	Leu	Gln	Gln	Gly	Pro	Ala
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<210> 4189

<211> 1570

<212> DNA

<213> Homo sapiens

<400> 4189

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180
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360
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420
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480
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540
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660
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1080
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1140
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1440
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<210> 4190
 <211> 523
 <212> PRT
 <213> Homo sapiens

<400> 4190
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 35 40 45
 Asp Glu Thr Asn Lys Gly Thr Lys Thr Glu Gly Glu Thr Glu Val Lys
 50 55 60
 Lys Asp Glu Ala Gly Glu Asn Tyr Ser Lys Asp Gln Gly Gly Arg Thr
 65 70 75 80
 Leu Cys Gly Val Met Arg Ile Gly Leu Val Ala Lys Gly Leu Leu Ile
 85 90 95
 Lys Asp Asp Met Asp Leu Glu Leu Val Leu Met Cys Lys Asp Lys Pro
 100 105 110
 Thr Glu Thr Leu Leu Asn Thr Val Lys Asp Asn Leu Pro Ile Gln Ile
 115 120 125
 Gln Lys Leu Thr Glu Glu Lys Tyr Gln Val Glu Gln Cys Val Asn Glu
 130 135 140
 Ala Ser Ile Ile Ile Arg Asn Thr Lys Glu Pro Thr Leu Thr Leu Lys
 145 150 155 160
 Val Ile Leu Thr Ser Pro Leu Ile Arg Asp Glu Leu Glu Lys Lys Asp
 165 170 175
 Gly Glu Asn Val Ser Met Lys Asp Pro Pro Asp Leu Leu Asp Arg Gln
 180 185 190
 Lys Cys Leu Asn Ala Leu Ala Ser Leu Arg His Ala Lys Trp Phe Gln
 195 200 205
 Ala Arg Ala Asn Gly Leu Lys Ser Cys Val Ile Val Leu Arg Ile Leu
 210 215 220
 Arg Asp Leu Cys Asn Arg Val Pro Thr Trp Ala Pro Leu Lys Gly Trp
 225 230 235 240
 Pro Leu Glu Leu Ile Cys Glu Lys Ser Ile Gly Thr Cys Asn Arg Pro
 245 250 255
 Leu Gly Ala Gly Glu Ala Leu Arg Arg Val Met Glu Cys Leu Ala Ser
 260 265 270
 Gly Ile Leu Leu Pro Gly Gly Pro Gly Leu His Asp Pro Cys Glu Arg
 275 280 285
 Asp Pro Thr Asp Ala Leu Ser Tyr Met Thr Ile Gln Gln Lys Glu Asp
 290 295 300
 Ile Thr His Ser Ala Gln His Ala Leu Arg Leu Ser Ala Phe Gly Gln
 305 310 315 320
 Ile Tyr Lys Val Leu Glu Met Asp Pro Leu Pro Ser Ser Lys Pro Phe
 325 330 335
 Gln Lys Tyr Ser Trp Ser Val Thr Asp Lys Glu Gly Ala Gly Ser Ser

340 345 350
 Ala Leu Lys Arg Pro Phe Glu Asp Gly Leu Gly Asp Asp Lys Asp Pro
 355 360 365
 Asn Lys Lys Met Lys Arg Asn Leu Arg Lys Ile Leu Asp Ser Lys Ala
 370 375 380
 Ile Asp Leu Met Asn Ala Leu Met Arg Leu Asn Gln Ile Arg Pro Gly
 385 390 395 400
 Leu Gln Tyr Lys Leu Leu Ser Gln Ser Gly Pro Val His Ala Pro Val
 405 410 415
 Phe Thr Met Ser Val Asp Val Asp Gly Thr Thr Tyr Glu Ala Ser Gly
 420 425 430
 Pro Ser Lys Lys Thr Ala Lys Leu His Val Ala Val Lys Val Leu Gln
 435 440 445
 Ala Met Gly Tyr Pro Thr Gly Phe Asp Ala Asp Ile Glu Cys Met Ser
 450 455 460
 Ser Asp Glu Lys Arg Arg Gly Leu Lys Tyr Glu Leu Ile Ser Glu Thr
 465 470 475 480
 Gly Gly Ser His Asp Lys Arg Phe Val Met Glu Val Glu Val Asp Gly
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 Gln Lys Phe Arg Gly Ala Gly Pro Asn Lys Lys Val Ala Lys Ala Ser
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<210> 4191

<211> 1661

<212> DNA

<213> Homo sapiens

<400> 4191

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 300
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 360
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 420
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 480
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 720

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<210> 4192

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4192

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Gly	Pro	Leu	Gln	Asp	Glu	Thr	Leu	Gly	Val	Ala	Ser	Val	Pro	Ser	Gln
		20						25					30		
Trp	Arg	Ala	Val	Gln	Gly	Ile	Arg	Gly	Glu	Thr	Lys	Ser	Cys	Gln	Thr
		35					40					45			
Ala	Ser	Ile	Ala	Thr	Ala	Ser	Ala	Ser	Ala	Gln	Ala	Arg	Asn	His	Val
		50				55				60					
Asp	Ala	Gln	Val	Gln	Thr	Glu	Ala	Pro	Val	Pro	Val	Ser	Val	Gln	Pro
65					70					75				80	
Pro	Ser	Gln	Tyr	Asp	Ile	Pro	Arg	Leu	Ala	Ala	Phe	Leu	Arg	Arg	Val
			85					90					95		
Glu	Ala	Met	Val	Ile	Arg	Glu	Leu	Asn	Lys	Asn	Trp	Gln	Ser	His	Ala
		100					105					110			
Phe	Asp	Gly	Phe	Glu	Val	Asn	Trp	Thr	Glu	Gln	Gln	Gln	Met	Val	Ser

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Val Thr Ser Ile Ser Trp Asn Ser Thr Gly Ser Val Val Ala Cys Ala		
145	150	155
Tyr Gly Arg Leu Asp His Gly Asp Trp Ser Thr Leu Lys Ser Phe Val		
165	170	175
Cys Ala Trp Asn Leu Asp Arg Arg Asp Leu Arg Pro Gln Gln Pro Ser		
180	185	190
Ala Val Val Glu Val Pro Ser Ala Val Leu Cys Leu Ala Phe His Pro		
195	200	205
Thr Gln Pro Ser His Val Ala Gly Gly Leu Tyr Ser Gly Glu Val Leu		
210	215	220
Val Trp Asp Leu Ser Arg Leu Glu Asp Pro Leu Leu Trp Arg Thr Gly		
225	230	235
Leu Thr Asp Asp Thr His Thr Asp Pro Val Ser Gln Val Val Trp Leu		
245	250	255
Pro Glu Pro Gly His Ser His Arg Phe Gln Val Leu Ser Val Ala Thr		
260	265	270
Asp Gly Lys Val Leu Leu Trp Gln Gly Ile Gly Val Gly Gln Leu Gln		
275	280	285
Leu Thr Glu Gly Phe Ala Leu Val Met Gln Gln Leu Pro Arg Ser Thr		
290	295	300
Lys Leu Lys Lys His Pro Arg Gly Glu Thr Glu Val Gly Ala Thr Ala		
305	310	315
Val Ala Phe Ser Ser Phe Asp Pro Arg Leu Phe Ile Leu Gly Thr Glu		
325	330	335
Gly Gly Phe Pro Leu Lys Cys Ser Leu Ala Ala Gly Glu Ala Ala Leu		
340	345	350
Thr Arg Met Pro Ser Ser Val Pro Leu Arg Ala Pro Ala Gln Phe Thr		
355	360	365
Phe Ser Pro His Gly Gly Pro Ile Tyr Ser Val Ser Cys Ser Pro Phe		
370	375	380
His Arg Asn Leu Phe Leu Ser Ala Gly Thr Asp Gly His Val His Leu		
385	390	395
Tyr Ser Met Leu Gln Ala Pro Pro Leu Thr Ser Leu Gln Leu Ser Leu		
405	410	415
Lys Tyr Leu Phe Ala Val Arg Trp Ser Pro Val Arg Pro Leu Val Phe		
420	425	430
Ala Ala Ala Ser Gly Lys Gly Asp Val Gln Leu Phe Asp Leu Gln Lys		
435	440	445
Ser Ser Gln Lys Pro Thr Val Leu Ile Lys Gln Thr Gln Asp Glu Ser		
450	455	460
Pro Val Tyr Cys Leu Glu Phe Asn Ser Gln Gln Thr Gln Leu Leu Ala		
465	470	475
Ala Gly Asp Ala Gln Gly Thr Val Lys Val Trp Gln Leu Ser Thr Glu		
485	490	495
Phe Thr Glu Gln Gly Pro Arg Glu Ala Glu Asp Leu Asp Cys Leu Ala		
500	505	510
Ala Glu Val Ala Ala		
515		

<210> 4193

<211> 6439

<212> DNA

<213> Homo sapiens

<400> 4193

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1500

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<211> 519

<212> PRT

<213> Homo sapiens

<400> 4194

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 Glu Glu Asn Gly Arg Ala Cys Glu Met Asn Gly Glu Glu Cys Ala Glu
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 100 105 110
 Pro Asn Gly Lys Leu Lys Cys Asp Ile Cys Gly Ile Ile Cys Ile Gly
 115 120 125
 Pro Asn Val Leu Met Val His Lys Arg Ser His Thr Gly Glu Arg Pro
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 Phe Gln Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu
 145 150 155 160
 Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys His
 165 170 175
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 Arg Thr His Ser Val Gly Lys Pro His Lys Cys Gly Tyr Cys Gly Arg
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 Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys His
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 Asn Tyr Leu Glu Ser Met Gly Leu Pro Gly Thr Leu Tyr Pro Val Ile
 225 230 235 240
 Lys Glu Glu Thr Asn His Ser Glu Met Ala Glu Asp Leu Cys Lys Ile
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 Gly Ser Glu Arg Ser Leu Val Leu Asp Arg Leu Ala Ser Asn Val Ala
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 Lys Arg Lys Ser Ser Met Pro Gln Lys Phe Leu Gly Asp Lys Gly Leu
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 Ser Asp Thr Pro Tyr Asp Ser Ser Ala Ser Tyr Glu Lys Glu Asn Glu
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 Tyr Leu Gly Ala Glu Ser Leu Arg Pro Leu Val Gln Thr Pro Pro Gly
 325 330 335
 Gly Ser Glu Val Val Pro Val Ile Ser Pro Met Tyr Gln Leu His Lys

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 Ala Val Glu Asn Leu Leu Leu Ser Lys Ala Lys Leu Val Pro Ser
 370 375 380
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 His Ile Ala Pro His Ala Arg Asn Gly Leu Ser Leu Lys Glu Glu His
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 Arg Ala Tyr Asp Leu Leu Arg Ala Ala Ser Glu Asn Ser Gln Asp Ala
 435 440 445
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 450 455 460
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 Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys Asn Met Cys Gly
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<210> 4195

<211> 1200

<212> DNA

<213> Homo sapiens

<400> 4195

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<211> 318

<212> PRT

<213> Homo sapiens

<400> 4196

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Phe	Ala	Thr	Leu	Ala	Leu	Ile	Leu	Leu	Val	Leu	Leu	Glu	Ala	Leu	Ala
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Gln	Ala	Asp	Thr	Gln	Lys	Met	Val	Glu	Ala	Gln	Arg	Gly	Val	Gly	Pro
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			260						265				270				
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<210> 4197

<211> 597

<212> DNA

<213> Homo sapiens

<400> 4197

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<210> 4198

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4198

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		20						25				30					
Met	Ala	Leu	Pro	Thr	Gln	Ala	Gln	Val	Val	Ile	Cys	Gly	Gly	Gly	Ile		
	35					40					45						
Thr	Gly	Thr	Ser	Val	Ala	His	Gln	Ser	Lys	Met	Gly	Trp	Lys	Asp			
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Ile	Val	Leu	Leu	Glu	Gln	Gly	Arg	Leu	Ala	Ala	Gly	Ser	Thr	Arg	Phe		
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<210> 4200

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4200

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 Met Ile Pro Thr Val Gly Phe Asn Met Arg Lys Val Thr Lys Gly Asn
 50 55 60
 Val Thr Ile Lys Ile Trp Asp Ile Gly Gly Gln Pro Arg Phe Arg Ser
 65 70 75 80
 Met Trp Glu Arg Tyr Cys Arg Gly Val Asn Ala Ile Val Tyr Met Ile
 85 90 95
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 130 135 140
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 Leu Ile Gln His Ser Lys Ser Arg Arg Ser
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 <211> 917
 <212> DNA
 <213> Homo sapiens

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